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WALKS AND TALKS ON THE FARM.—NO. 7.

It is glorious weather for cultivating corn. Rain is wanted on the late sown barley and oats, but I would not ask for better weather for corn or any other crop that you can horse-hoe. It is easy to destroy weeds, and the soil can readily be made as loose and mellow as a garden.

How much corn ought a man to cultivate in a day? Mr. I—— says one of his men cultivated eight acres yesterday. I timed my men, and found that they were, on an average, four minutes to a row forty rods long. As the rows are 3 feet 4 inches apart, each row is the twentieth part of an acre. At four minutes to the row, it would take one hour and twenty mihutes to the acre, cultivating it once in a row. This would be 8½ acres in a day of ten hours. If the horse walks two miles an hour, it would take exactly 10 hours to cultivate 8 acres.

I had three men cultivating corn yesterday, and it took them eight hours to go once over twelve acres. This is equal to five acres a day for one man. They are now going over the field the second time, and as they can see the rows more readily they will probably do better. Even at five acres a day I am satisfied that nothing will pay better than the free use of the cultivator.

Mr. Noah North, of Genesee county, writes me that he has found the following method of ventilating hay stacks or mows very convenient and satisfactory: "Before commencing to fill the bay with hay, take an empty salt barrel with both heads out. Place it in the center of the bay with the bottom end resting on two rails, which extend to the outer sides. Then place the hay round it, and as the mow progresses raise the barrel, keeping a greater part of it above the surrounding hay—thus forming and leaving a hole in the center of the mow from bottom to top, through which the steam or gases arising from the hay may escape and prevent over-heating."

I recommended this method of ventilating hay stacks in the *Genesee Farmer* eight or ten years ago, except that I would use a bag filled with cut straw instead of a barrel. In England the practice is very common. In this country, where we usually have good weather for curing hay, it is not so necessary. I have seen an English stack of clover hay in which such a hole had been left smoke like a chimney! Of course it would be better to cure the hay sufficiently to prevent such excessive fermentation, as the heat and gases so produced are generated at the expense of a portion of the nutritious matter of the hay. But it is not always easy to hit the exact point, and a ventilator or chimney of this kind will do no harm where it is not needed, and where it is will be very advantageous.

Mr. N. Travis, of Faribault, Rice county, Minn., writes me that he has been ten years in that State, and would like to say to his old friends at the East that he is satisfied that there is no State where cattle and sheep can be kept to better advantage, or where better grain can be produced. Many people think the climate is too severe, but the winters are dry, and sheep especially thrive remarkably well. The farmers are turning their attention to sheep, and he thinks in five years Minnesota will be a great wool-producing State.

I have no doubt that such will be the case. It is an old saying—"sheep like roast meat better than boiled." It is astonishing how well they thrive on pastures which look perfectly burnt up. I do not know that Minnesota is more liable to drouths in summer than the more southern States, but all accounts agree that Northern Wisconsin and Minnesota have a remarkably dry, steady winter climate, and this is just what sheep require. They will do better there than in the milder, but wetter, Southwestern States. I suppose the climate of Minnesota is quite similar to that of Vermont, now so celebrated for its fine-wooled sheep.

A gentleman from Canada writes me that he has discovered the cause of the potato rot—and its cure. The cause is a deficiency of electricity in the soil!

There is not the slightest evidence that this is the case; but the remedies he recommends are excellent. The object, he says, is to furnish good "conductors of electricity." On heavy land the ground should

be well cultivated and hoed to keep it porous, "so that the electric life can circulate freely. The potatoes will then grow large and fine, but so soon as the hoe and plow are laid aside, the soil becomes weather-beaten, the plants can not receive the supply of electric life they require, and the finest of them will decay. To avoid this calamity the soil should be kept free and open by conductors freely spread upon the land and plowed under—such as tan-bark, chip manure, leaves, chips of leather, old rags, &c.

This is all very well. Keep the soil porous by the free use of the cultivator and hoe, and, while we do not believe it would get any more "electric life," the plants will be able to penetrate the soil more easily, and will be more likely to resist the ravages of the disease.

I have no sort of doubt but that the potato rot is caused by a fungus; but farmers generally know so little of the habits of this class of plants, that they are at a loss to perceive how a minute plant can spread so rapidly as to produce the effects witnessed when a field of potatoes is affected with the disease.

At the International Wheat Show held in Rochester last fall, Mr. S. B. Walton, of Maryland, entered twenty bushels of "Boughton Wheat," which did not arrive until after the Fair had closed. It was of excellent quality, and ripens very early. John Johnston, of Geneva, purchased half of the lot for seed, and F. P. Root, of Sweden, the other half. Mr. Johnston, under date of May 27th, writes me as follows:

"I would like to hear how the Maryland wheat is doing with the farmer west of Rochester. Mine was hurt by the winter considerably. There is considerable of it now in ear, and has been for some days. My Soules wheat now looks splendid—too large—but I fear will be late. Where there is a large growth of straw the crop is always later than when a smaller growth. Mine is both too thick and too tall. In its present state of forwardness it ought to be coming in ear now, but I am doubtful if it is in ear in less than two weeks or more, and then it won't yield well. My Maryland wheat is very short in the straw and thin on the ground. The winter was too hard on it, but it is sure to be of prime quality. I will give it a better chance next autumn, both by shelter and a few days earlier sowing. I will make it succeed if possible. Mediterranean wheat looks anything but promising in this neighborhood, and I hear bad accounts from everywhere of the wheat crop.

"Grass is first-rate. Early-sown Barley never looked better. Much corn yet to plant. Rain has kept labor greatly back. I have not seen the like since I came here, now forty-three years."

The recent dry, hot weather is bringing the wheat forward rapidly, and I think it will be of good quality. The yield, however, will not be large. It is rare to find a field in this section where more or less was not injured by the wet weather in spring. Mr. Johnston, on his rich, thoroughly underdrained farm, may have wheat "too thick and too tall," but there are few who have any cause to complain on this account.

By the way, Mr. J. says that if he had his life to live over again, he would put his drains only sixteen feet apart! They are now about thirty feet apart. If my farm was only half as well drained as his I would be satisfied—for the present. It is said, however, that partial underdraining is of comparatively little benefit. It is better to thoroughly drain one field than to half drain two.

A few weeks ago a young man in Canada wrote me that he wished to come to the States to learn farming. He was seventeen years old, without means, and was then engaged in a printing establishment. He had a taste for agriculture, and thought he would like to be a scientific farmer. I wrote him that the only way he could learn agriculture was to hire out with a good farmer, and that he would find as many such in Canada as in the States, but that he could probably get higher wages here. He now writes me: "Do you think that any other situation (besides a laborer on a farm) could be got for a boy of seventeen? Also, what are the wages for different hands on a farm?"

I have one boy on the farm sixteen years old that I pay twelve dollars per month and board. Twenty dollars per month and board for the summer months is about the average paid to first-class farm hands. There is no difficulty in getting work on a farm, but it is not so easy to get a situation in the city. If this boy has a real taste for agriculture, and is fully determined to make a good farmer, he will accomplish his object. There are no difficulties that will not disappear before a firm purpose and persistent effort.

But if a young man, without property, thinks he can become a "scientific farmer" and have a nice, easy time of it into the bargain, he will certainly be disappointed. I can easily imagine a young man who spends some time in reading a certain class of agricultural literature, entertaining the idea that nothing is so easy as to become "a scientific farmer," and he might picture to himself a fine farm with good buildings, heavy crops and large herds of thoroughbred cattle, and himself the owner of the whole—simply by availing himself of a little chemical knowledge which he had picked up from books! Alas! it is not easy to become a scientific farmer! Nothing valuable can be had without labor—and the labor needed is generally in proportion to the value of the thing desired.

I once knew an English boy, the son of one of the younger branches of an old aristocratic family, who was asked one day by his father what pursuit in life

he intended to follow. "Will you be a doctor, or a lawyer, or a parson?" he asked. After a few minutes reflection the little fellow replied: "I will be like Uncle John, and have a farm and go a-'unting!" "Uncle John" was the owner of a large estate, and kept a good stud of hunting horses, with other things to match, and there are few of us who would object to adopt "Uncle John's" profession. There are few of us, too, that would not like to be scientific farmers with plenty of money to do things "just as they should be." But those of us who are poor must make up our minds to a good deal of hard work, and learn to take pleasure in doing our daily duty. In this way we shall be of more use to others and be happier ourselves than if we were "born with silver spoons in our mouths."

How hard it is to keep men at work unless you are with them—and it is not easy even then at this time, when they know quite well that if you turn them away they can get work the next day. "If my ways don't suit you," said one of my men to me a few days since, "why, you can just get some one else in my place." I told him that he had engaged to work for me until the first of November. I had kept him through the spring, when, owing to the wet weather, we had comparatively little to do, and now that the work was very pressing it was not honorable on his part to neglect his duties, and then when I complained to tell me that I need not keep him. Finding that moral suasion had little influence, I told him that of course he could leave if he wished, but that I should not pay him; and furthermore, if he idled away his time, I should keep an account of the hours he lost, and charge him for the team as well as for his own time. This seemed to be a new idea to him, and he has worked better since.

It seems, however, that, as the law now stands, the only way in which it can be done is to sue the man before the expiration of his time. When his time is up, if you refuse to pay him the full amount, he can sue you in a Justice's Court and recover the whole. He may have robbed you or cheated you in various ways, and even confess that he has done so, and you can not make any set-off against his claim for wages. He can recover the full amount. The only way is to get a judgment against him before the expiration of his time.

Those who have anything to sell, should keep track of the markets. Wheat advanced yesterday from ten to twenty cents a bushel. I know a farmer near here who sold six hundred bushels three days ago for $1.80 a bushel. He could now get $2.00.

I intend to put in all the wheat I can this fall. There is a general feeling that spring crops pay better than wheat—and for the last few years in this section such has been the case. The result will be that less wheat will be sown than usual. Owing to the magnificent crop of wheat last year in Europe, especially in Great Britain, wheat has been lower than any other grain. It is not improbable that the effect of this fine crop will still be felt for several months, and that we shall not get for this year's wheat crop as high a relative price as for other grains. But if I mistake not, less wheat than usual will be sown this fall in all sections of the Loyal States, and wheat in 1865 will be in demand.

Oh, the stones, the stones! Yesterday William strained the beam of the three-horse plow so much that it would not work. I sent it to the city and got a new beam put in. This morning, before he had been three rounds with it, he struck a stone and broke the new beam in two! "The fault was in the beam," he said. "It was nothing but oak, and it ought to have been rock elm."

The fault really is in not getting out the stones. How any man can work among stones for five or six years and make no effort to get them out, is more than I can understand. The saving in implements alone would pay for the whole expense in three years—to say nothing of the value of the stones for fencing.

Butter is only worth 25 cents a pound in Rochester. Why it should be so low here while it is worth (in greenbacks) 50 cents a pound in England, it is difficult to understand, unless the quality is so poor that it can not be exported.

I know a lady in Chemung county that has contracted her butter for the season at 42 cents, and she has a neighbor who has contracted her's for 47 cents a pound. She keeps eighty cows. The butter from the one dairy is just as good as the other, but the one is well known in New York, and this is the only reason why it brings five cents a pound more than the other. It may be that there is butter made in this section that is just as good as that made in the "southern tier," but the latter has a better reputation and always commands a higher price. We have, on many farms at least, just as good pastures and as good water and as good cows, and why we can not make as good butter I do not understand.

"Put things up after you are through with them" is one of my standing orders. I do not know how it is with other farmers, but I can find few men who can be persuaded to adopt this simple rule. I have one man who actually contends that it is better to leave tools where you are at work, and then, he says, "you know where to find them!"

This morning I went to the potato field, and there found scattered up and down the lot six guano barrels, two baskets, about a peck of cut potatoes, and

a bushel or so of uncut, one hoe, two spades, two pails, a tin pan, and a coal-scuttle!

A gentleman in Canada writes me that an excellent plan to get rid of the maggots which destroy so many cabbage and cauliflower plants by eating their roots, is to dissolve half an ounce of corrosive sublimate in four gallons of water, and water such plants as are affected, either in the seed-bed or when set out. It will kill all kinds of insect life. It is a virulent poison, and should be used with care. It would probably be equally destructive to the maggots which attack our onions.

John B. Ellis, of Delphi, Ind., writes me asking where he can procure a good Cotswold ram. He adds: "I would like a good one, but don't want it to turn out like the Canadian's "Chester White Pigs."

Hot and dry as the weather is, the beans grow finely. I soaked the seed for forty-eight hours before planting, and they came up in a few days, and before I knew it were large enough to hoe. In this section there were never so many beans planted as this year, and it is not impossible that the market may be overstocked. I have always thought, however, that beans might be raised with profit even for feeding sheep.

The newspapers report a splendid crop of grass in this State and throughout New England. Grass certainly grew well in May, but the dry weather has checked it considerably. My meadows are burning up, and will yield rather a light crop. I hear that others are making the same complaint.

I have just heard that the drouth is so severe in Wisconsin and Minnesota that great fears are entertained for the growing crops. The spring wheat, which is the kind principally grown, it is said, will be an entire failure. It has created quite a panic among the grain merchants in Milwaukee. Wheat went up in one day over 20 cents a bushel! It seems to be admitted that the wheat crop of the country will not be over two-thirds the general average.

Corn is much more promising, and, if we can credit the newspaper accounts, an unusually large breadth of land has been planted. Never were large crops so much needed as at the present time, and farmers, both for their own interest and for the welfare of the nation, should strain every nerve to secure this result. Wages are high, but not higher than grain and other products.

Last month I predicted that wool would bring *a dollar* per pound before next spring. Yesterday (June 22) gold went up, for a short time, to 230! Wool and pork, which are favorite articles with speculators, followed suit. Ohio domestic fleece was sold at one dollar per pound, and mess pork at $43 per barrel. I was in the city when the news of this great advance in gold was received. Everybody was excited. "It will be 500 in less than six weeks," said a well known speculator. Perhaps the wish was father to the thought. "It takes two tollars for one," said the Dutch butcher-boy, and I suppose, asked a cent a pound more for his meat.

To-day, gold is down to 210! and I shall probably have to hold my wool awhile longer before I get a dollar per pound. As soon as I can get a dollar for it, I will sell, but not before—at least, not at present. There is probably more wool produced this year than ever before, but the consumption is also greater.

The papers are urging farmers to sow ruta bagas and other turnips. The advice is timely; but unfortunately turnips require a thorough preparation of the soil. In England, where this crop is held in such general estimation, the land is plowed in the fall and two or three times in the spring, with numerous harrowings, rollings, &c., until the soil is as mellow as an ash heap. Nearly all the manure of the farm is applied to the turnip crop. The result is enormous crops, which, being consumed on the land, add greatly to its fertility.

I believe we could raise just as good crops of ruta bagas and white turnips in this country if we gave them as good culture. Turn up the moist soil immediately before sowing. Drill in the seed in rows 2½ feet apart, and when the plants are in the rough leaf, thin out to 12 inches apart; and if the soil is rich we map expect a good crop. To sow ruta bagas broadcast, and neglect to hoe them, is a waste of seed and labor. The common white turnip may sometimes give a fair crop with such treatment, but it would be better to sow in drills and hoe them.

I have tried several new kinds of peas this season, but find none of them for early peas better than Daniel O'Rourke. The Washington, which I have grown for the first time this year, is decidedly a poor variety—not even as good as the old fashioned Early Kent. It is dry and hard, and decidedly deficient in sweetness and flavor. It is little better than the Tom Thumb.

I have one crop that I feel proud of: some Early June and Six Weeks potatoes. The ground is very warm and light, and I planted in good season, and manured them in the rows at the rate of 400 pounds to the acre, with Baugh's raw-bone superphosphate. Better potatoes I never saw. Of all the manures I have used the present season, this raw-bone superphosphate, so far, has done the most good. For garden vegetables it is certainly an excellent manure.

CORN AFTER TURNIPS.

THERE is a very general impression that corn will not succeed on land where turnips have been raised the previous year. Every now and then the subject is discussed in our agricultural papers, and the facts elicited are of the most contradictory character. Some say that the turnips "poison the land," while others assert that they are not injurious. One of our leading agricultural journals says:

"We have seen the experiment of cultivating corn after turnips tried again and again without success, and have never known an intelligent farmer who under any circumstance would incur the risk of losing his seed, labor and manure, by attempting to make a decent crop of corn upon land which had yielded a crop of ruta baga turnips the previous year.

"For the smaller grains, and especially wheat, the turnip crop is a good preparation, but whether the land is poisoned or not, some how or other the Indian corn does not find in such soil the pabulum which will make it grow."

That turnips are a good crop to preceed wheat and barley, especially if they are consumed on the land, as in England, is a well-known fact. There is no crop so good for this purpose. We have seen a field that was part potatoes and part turnips, and the crop of barley the next year showed the exact row where the potatoes ended, from the increased luxuriance on the turnip land.

Where turnips are consumed on the land, or where the manure made by their consumption is returned to the soil, no plant that we are acquainted with is so beneficial as this so-called "fallow crop." Where turnips are grown and removed entirely from the land, as is generally the case in this country, they probably impoverish the soil as much as any other of our commonly cultivated crops.

The reason why turnips have proved so beneficial to English agriculture is mainly owing to the fact that they take up from the soil a large quantity of organic and inorganic "plant-food," and which is returned to the land directly or indirectly in the form of manure; but if the turnips were sold off the farm, this large quantity of "plant-food" would be lost to the soil, and the turnip, instead of being a renovating crop, would prove an exhaustive one. That turnips "poison the land" there is no sort of evidence. That corn will not do as well after them as the smaller grains is quite possible. We are inclined to think that corn requires more carbonaceous matter in the soil than wheat and barley, and it is well known that turnips take more carbonaceous matter from the soil than any other crop we cultivate. If it *is* a *fact* that corn will not do as well as wheat and barley after turnips this may be the reason. But is it a fact?

CLOVER, as well as the grasses, intended for hay, should be mowed when in blossom.

FARM WORK FOR JULY.

CONTINUE to cultivate well, till arrested by the labors of haying and harvesting. Continue the war against weeds; "a stitch in time will save" thousands. See work for last month.

HAYING.—The best time to cut hay is at the transition from flower to seed. The precise point, of course, can not be generally attained in ordinary practice, where many days are required for securing a crop, but the nearer we come to it the better. The expedition accomplished by means of mowing machines, horse rakes and horse forks have, however, greatly facilitated this object. Cutting grass early produces more readily a good after-growth. If done too soon, it will lack substance; if too late, it will be hard and woody. Celerity of operations depends much on good management, and on having every thing in full readiness. The omission of some requisite will delay the whole, and a day's delay, by throwing the mass of the work into a rain storm, may result in heavy loss.

STACKING in the open field can not be recommended. Ample barns should always be provided. Yet temporary necessity may often require stacking. When resorted to, it should be done well; the stacks built even and with symmetrical form; the hay should be pitched on from different sides to preserve upright and even settling; for when a stack settles to one side, it necessarily exposes the upper side to rain, and often to the loss of a large portion of the stack. Good stackers repeatedly and regularly pass around the structure, and place the hay in uniform forkfuls in regular and circular layers. The center is always rounded the highest. In a well built stack the fibres at the outside falling downward prevent any rains from passing in but a few inches; one laid up badly may allow the water to enter a foot or more. The sprinkling of a peck to a half bushel of salt through each tun of hay assists in preserving it, and renders it more palatable.

In selecting the best mowing machine, it is very important to procure one not liable to breakages; for a break may delay all hands, retard the work before approaching rains, and occasion a loss ten times as great as the mere cost of repairs. The best machines effect a great saving, and will cut regularly from eight to twelve acres per day—or in good grass from sixteen to twenty-five tuns daily.

Where every facility is provided in connection with the best modern machinery for hay making, including horse rakes and horse forks, hay can be manufactured for fifty cents a tun—with bad or imperfect management it may amount to $2.00 or $3.00 per tun.

HAY CAPS.—In regions of the country liable to sudden storms, and in proximity to cities where hay

commands a high price, hay caps are important and valuable, frequently saving much labor, and preserving the quality of the hay. After a little practice in use they may be applied in less time than is commonly required for trimming the cocks. The following directions for making them are given by H. F. French: "Take four yards of yard wide cotton sheeting; sew it together so as to make two yards square; hem the rough edges; turn up each corner two or three inches, and sew it strongly; tie in a short strong twine to form a loop, and you have a hay cap ready for use. Four sharp wooden pins, of hard wood, half an inch in diameter, eighteen inches long, to be thrust upwards through the loops into the hay at the bottom of the cock, completes the preparation."

WHEAT.—Cut this as nearly as practicable about one week before it is dead ripe. Careful experiments show that the grain is heaviest and makes the best flour while a portion, say about one-third, of the chaff is yet green, or with green streaks running through it, and the straw is brighter and richer. The same crop will of course vary some, and the time can not always be controled to a day, but the above rule should be aimed at. It is always worth paying something for insurance, and the extra labor required for putting up good, well-capped shocks, in which the grain may stand until thoroughly dry, is a very profitable premium to pay. Seven sheaves form a good size. The caps should be bound very tightly near the buts, and the straw broken down all round before placing it. Practice will enable a hand to shock very rapidly. Hay caps, made of cotton, form an excellent covering for wheat, when they can be had.

TIMOTHY SEED.—Select the best portions of timothy meadows for seed, pulling out any weeds or foul stuff which may be found in it.

SOW BUCKWHEAT during the present month. The ground should have been previously well prepared for it, and rendered clean and mellow. The failure of this crop is often owing to the imperfect manner in which it is put in.

CUTTING TIMBER.—The best season for cutting timber has caused much discussion; but full experiments have shown that it always lasts longest when most rapidly seasoned; this is more especially the case with all the soft and less durable kinds of timber. Basswood rails cut and split at midsummer, with the bark immediately peeled from the wood, will dry rapidly, and become durable and hard, like horn; cut in winter or spring, it dries very slowly, generally becomes sap-rotten, and is of little value.

ORCHARDS.—These, if young, should be kept well cultivated throughout summer, either in low, hoed crops, or in mellow soil without crops. This treatment is most important for peach trees, which will grow at least ten times as fast as when their cultivation is neglected; apples three or four times as fast. Newly set cherry trees often die during the heat of midsummer, which is easily prevented by a wide and thick mulching placed around them. Watering young trees, at this time, usually does more harm than good, by merely crusting the surface without moistening the roots, and at best affording but an irregular and temporary supply. If the surface of the soil is kept mellow, it will preserve moisture enough in the earth, and the rapid growth of the tree will render watering unnecessary. The black-knot, which so often disfigures and destroys plum trees, may be kept off by watching and constantly cutting it away on its first appearance.

WEEDS.—The busy labors of the month are apt to cause a neglect of weeds; and farmers who have kept their hoed crops clean until now, frequently neglect them, and they become foul. One of the most economical of all expenditures would be that of a little more labor in destroying these weeds, so that they may not seed the whole land for another year.—*Tucker's Annual Register.*

THE ONION MAGGOT.

MANY parts of the world have been, and are yet, visited by this plague. On sandy land in Canada it was for some years impossible to raise a crop of onions from seed, and the consequence was that we were driven to import our supplies, and trust to the potato and top varieties. A lady who had a green-house and raised a large amount of early salad, had at one time a quantity of onion seed sown in the green-house early in the winter. After selecting such as were wanted for the house during the cold season, there was still left in the spring a large bed containing some thousands of plants. These were transplanted into the garden, and produced an abundant crop of fine bulb, far finer than any which had been previously raised from seed in the same place. They were also entirely free from the maggot, although beds of onions raised from seed adjoining the transplanted ones were completely swept off by the pest. The fact was taken advantage of in subsequent years, and an abundant supply of the finest onions was the result.

It would appear from this that the maggot produced by the fly can not exist on or injure the plant when it has attained a certain stage of maturity. Subsequent experiments confirmed this view of the case.

Every one whose land is subject to the onion maggot, and who may try this plan, should raise the onion plants from seed sown under glass *very early*. The soil in which the seed is sown should be coarse

sand, with a portion of well-rotted manure mixed through it. The young plants may then be removed without injuring the roots. In transplanting take care not to set too deep, and also take care that the roots go straight down into the earth, as they naturally would if sown where they are intended to stand.

The above method secures a good and early crop, saves all the trouble and pain of hand-weeding, which any one who has done much of will fully value. A deep cut with a spade and filled with liquid manure, ensures the size and growth of the crop.

A CANADIAN.

TRANSPLANTING SWEDISH TURNIPS OR RUTA BAGAS.

FEW persons are aware of the advantages attending the transplantation of Swedish turnips, and fewer still know how to do it. William Cobbett was the person who first pointed out the advantages of the plan to the English farmer. For many years at Botley, in Hampshire, England, he raised the most enormous crops. His mode of procedure, and in which many followed him, was this:

The turnip seed was sown very early in the season, in seed-beds composed of so loose and friable a soil (mostly, indeed, coarse sand and well-rotted manure thoroughly mixed), as to ensure the extraction of the plants when required without too much injuring the root fibres. During the time the plants were growing he was assiduously cultivating the soil in which they were finally to stand, and bringing it to the finest possible tilth. As soon as the plants were sufficiently matured, they were removed after a good watering from the seed-bed, taking care to lighten the earth with a trowel or other instrument in such a manner as to prevent injury to the fibres. The finest plants are of course first selected. After extracting, the plants remain for some hours in a mixture of soft mud and plaster. They are then taken to the field, no time being allowed for wilting and withering. The plow is set to work, and as fast as a furrow is thrown out the plants are laid along the surface of it, being dropped very rapidly. The roots are covered by the next furrow, and the planter follows to see that each plant is duly set—not too deep, but just up to the heart, and well pressed down with the foot. As soon as this is done, more furrows are plowed, and more turnips planted, and so on throughout the field. It is absolutely necessary that the planting and plowing should go on together. If only plowed the day before, the chances are greatly against success; but if the planting and plowing progress together, success is all but certain.

The writer of this article has seen Cobbett's field at Botley, and the growth exceeded belief.

The advantages are as follows: You get your fallows better cleaned, as during all the time the seed beds are growing you are cultivating the soil in which the plants are finally to stand; you are enabled to sow the plants so early as to be free from the fly, or you can protect them from the fly in the seed-beds by many well-known means; you save hoeing and thinning out, and you get a far larger yield per acre.

To prepare the plants, after withdrawing them carefully from the seed bed, lay them along a trench, root downwards, fill the trench with a mixture of soft mud made with rich soil and some plaster, so that each root carries with it to the field a separate coating of the mixture. This may be done the evening before planting. It ensures them against wilting too much before the new growth commences.

Those who want to ensure the growth of cabbage plants will adopt the same plan of claying or mudding the roots, and taking care that they are grown in seed-beds of sand and well-rotted manure. *

GAS-LIME, &c.

EDS. GENESEE FARMER: I have purchased a small farm, mostly within the corporation of Canandaigua, which is inclined to clay, but not heavy clay. I desire to improve it, and therefore ask your opinion as to the value of lime which has been used at the gas works, which are within one-half mile of me. One of the workmen told me it was used in tubs to pass the gas through to make it "swell better." I am entirely ignorant of the process, and should like to know how much it is lessened in value for land by that process. They offer it to me at $1.00 a wagon box full. If not materially injured, I have thought it might be an object to get it. Will you do me the favor to give me your opinion, at your convenience? Would lime be profitable for summer-fallow, or summer crops, or grass?—W. H. LAMPORT, *Canandaigua, N. Y.*

Those who have used gas-lime as a manure differ greatly in regard to its value. Some have found it quite beneficial, while others say it injured the crops. There can be little doubt but that the matter abstracted from the gas will injure plants if applied directly to them in large quantities. If applied to a summer-fallow at this time, and well incorporated with the soil, it is not probable that it will injure the wheat, and the *lime* will undoubtedly do good.

Lime, if you can obtain it at a reasonable rate, is one of the best and most permanent manures, and can be profitably applied to a summer-fallow for wheat. Use at least from 80 to 100 bushels per acre. Small doses seldom do much good. A convenient way to apply it is to put the lime in rows two rods apart, and put one bushel in heaps one rod apart in the rows. This will give you eighty bushels per acre. After it is slaked, spread it evenly over the surface with a shovel and harrow or cultivate it in.

BUTTER-MAKING.

WRITTEN FOR THE GENESEE FARMER BY A. F. B., E. AURORA, N. Y.

To make good butter care should be taken that the cows are healthy and have access to pure water and good sweet pasture and are freely supplied with salt. The shelter of shade trees is also beneficial. The same cow should be milked by the same person at about the same time each day, and should be treated gently and milked quickly, without stopping after the milking has commenced. It is important that the cows should be milked at the same hour at evening as they are in the morning.

After being drawn from the cow, the milk should be immediately taken to the milk-room and strained. The milk-room should be airy, cool and clean; and should be so constructed that a current of air can not strike directly upon the milk, or the butter will be liable to be full of white specks. The temperature of the milk-room should be kept, summer and winter, as near 58° as possible. It should not be near any hog-pen, sink-hole, or anything which renders the atmosphere impure. Every impurity of this kind is readily communicated to the cream, and consequently affects the butter. Every vessel used for holding the milk, cream or butter, should be kept clean and free from acidity. It is contended by some that it is best to churn the milk, but it is practiced very little in this country. Tin pans are believed to be the best vessels in which to set the milk, and should not be filled more than two-thirds full. The milk should stand just long enough for all the cream to rise, which should not exceed sixty hours at any season of the year. Perhaps a finer quality of butter may be produced by skimming the cream off and churning it while sweet; but it is a wasteful practice, as the cream does not all rise until the milk begins to thicken. After being skimmed, the cream should be placed in tin or glazed earthen vessels and covered with a coarse cloth, which will keep out insects but not exclude the air. At every addition of cream the whole should be thoroughly mixed. In small dairies, where churning is not done every day, it has been found beneficial to throw a small handfull of salt into the cream pot with the first skimming, which keeps it from becoming so sour as to be injured. I repeat, that when churning is not performed every day, it is of great importance that the cream which is newly taken off be mixed with that already in the vessel; otherwise, each skimming will remain in a layer by itself, and at the bottom will become very sour.

It is of little importance what kind of churn is used, provided *all* the cream is *continuously* and *uniformly* agitated. In large dairies some kind of power may be economically used in churning. The cream should be brought to about 60° or 62° F., and churned moderately at first, as churning may be performed with so much rapidity as to injure the butter. When the butter is sufficiently gathered by churning, it should be transferred to a wooden bowl with a wooden ladle. In large dairies the butter is partially worked with a machine; in small dairies the wooden ladle is generally used. The question whether cold water should be used is unsettled. If the temperature of the dairy-room is cool enough, the buttermilk may be worked out in warm weather without the aid of cold water; if not, cold water may be advantageously used; but at all events the buttermilk should be completely expressed, as the smallest quantity will effect the quality of the butter and render it rancid. In some dairies the practice is to finish the working process at once; in others the buttermilk is worked out, and the salt partially worked in, and it is then set away until the next day, when the operation is completed; and still others work out the buttermilk and wait until the next day before adding the salt—and some even give it a third working before it is packed. I believe it is deemed injurious to work butter any more after being salted, than just enough to thoroughly mix the salt with the butter. Experience and practice alone will enable the operator to work the butter skilfully and get out all the buttermilk and thoroughly mix the salt without rendering it salvy. The best of salt should be used. Liverpool dairy salt is used by many, but it is thought by some that coarse solar salt made fine is preferable. The quantity must be determined by the taste; but as a general rule about one ounce of salt to a pound of butter may be considered the proper proportion. If salt is put into the cream, as above directed, less salt will be required in the butter.

Butter laid down should be packed firmly and covered over the top with half an inch of salt. Brine sufficient to wet the salt should be added. Some dissolve a little saltpeter in the brine put on the top of the firkin. For neighborhood or family use, stone jars are undoubtedly preferable to any other vessel for keeping butter; but for shipping it should be packed in oak firkins. Pine and cedar communicate an unpleasant flavor to the butter, and should never be used. It should be kept in a cool place. Rancid butter may be improved by working it in sweet milk; and it is said that working it in water, to which twelve or fifteen drops of chloride of lime to a pound of butter has been added, will greatly improve it.

SEX OF EGGS.—It is stated that the sex of eggs may be determined, so that a person may raise a brood of the sex he wishes. If males are wanted, the longest eggs should be used; if females, those most round should be chosen.

POULTRY HINTS FOR JULY.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

It is sound philosophy which places the *useful* before the *beautiful*. Let a poultry establishment be well attended to—once become an object of pleasure and pride to the proprietor—and the various tribes of poultry will not long remain forgotten or uncared for. Fowls are most valuable to the farmer, and indispensable to the country resident. Poultry and eggs form no inconsiderable articles for the culinary department and the table. The varieties of the common barnyard fowl are very numerous, and are distinguished from one another by their size, color and fecundity.

A young hen, it is calculated, will lay the first year about 150 to 170 eggs; the second 120 to 140—diminishing as she grows older; and she should "go to pot" after the fourth year.

Great improvement has already taken place in the size and quality of meat of our common fowls of the barnyard by crossing them with some of the new breeds, and more will take place. The improvement in quality and quantity of poultry realized within the last eighteen or twenty years must carry the value of our poultry at the present time beyond twenty-five millions. Yet the estimate we make, large as it may seem to the uninitiated, represents but a small part of their annual value. Nothing else that breathes in the service of man has such power of multiplication or productiveness as fowls. As evidence of which we will mention a case that occurred in California a few years ago, where every thing is conducted on a large scale.

A farmer commenced in the month of January with ninety hens, and in less than seven months the stock had increased to over fifteen hundred hens and chickens, besides about three hundred that had been sold! It must be observed, however, that there was no lack of proper care, which is always needed to insure success.

There is a vast difference in fowls, and while some are hardy and profitable, others are weakly, and scarcely pay their way under the most favorable circumstances and the best management possible to bestow. It is always a judicious plan for the farmer to keep a few fowls of some kind upon his premises, as there is generally enough waste matter to feed them, and besides they are serviceable in protecting in a measure, the crops, by destroying the numerous insect depredators, which in the spring and summer months prey so voratiously on the youthful and more tender plants.

Most of the hens have hatched and reared their early broods and commenced laying for a second clutch; and now is the time to secure eggs for future use—but then great care should be taken to have them perfectly fresh. They should be collected daily and placed in a dry, cool place. If the eggs have been sit on even twenty-four hours, they should be rejected for keeping, but they are nowise injured for immediate use.

Preservation of Eggs.—The ancients had very imperfect notions of preserving eggs fresh if they knew no other method than what the elder Pliny says: "The best way to keep eggs is in bran-meale or floure, and during winter in chaffe; but for summer time, in branne." This would no doubt preserve them longer than if they were left entirely uncovered but it could not be depended upon, as we shall presently see, no more than the similar advice of Columella, who says: "The manner to keep eggs a long tyme is in the winter in straw, and in summer in branne or meale."

Old Gervase Markham says: "Because eggs of themselves are a singular profit, you shall understand that the best way to preserve or keepe them long is, as some thinke, to lay them in straw and cover them close; but that is too cold, and besides will make them musty. Others lay them in branne, but that is too hot. The best way to keepe them most sweet, most sound, and most full, is only to keepe them in a heape of old malt, close and well covered all over."

Nothing was known scientifically on the subject of preserving eggs till M. Reaumur was led to take it up. Eggs, after being laid, it was shown, lose daily by transpiration a portion of the matter which they contain, notwithstanding the compact texture of their shell, and of the close tissue of the flexible membranes lining the shell and enveloping the white. When an egg is fresh it is proverbially full, without any vacancy; and this is matter of common observation, whether it be broken raw, or when it is either soft or hard boiled. But in all stale eggs, on the contrary, there is uniformly more or less vacancy in proportion to the loss they have sustained by transpiration; and hence, in order to judge of the freshness of an egg, it is usual to hold it up to the light, when the translucency of the shell makes it appear whether or not there be any vacancy in the upper portion, as well as whether the yolk and white are mingled and turbid, or muddy, by the rotting and bursting of their enveloping membranes.

The transpiration of eggs, besides, is proportional to the temperature in which they may be placed—cold retarding and heat promoting the process; and hence, by keeping fresh laid eggs in a cool cellar, or, better still, in an ice-house, they will transpire less, and be preserved for a longer period sound than if they are kept in a warm place or exposed to the sun's light, which has also a great effect in promoting the exhalation of moisture. As therefore

fermentation and putridity can only take place by communication with the air of a moderate temperature, some means must be devised to exclude such connection by closing the pores of the shell.

The first material used by M. Reaumur was spirit of wine varnish, made with lac, and he says that "it was impossible to distinguish the varnished eggs, which had been kept for a year, from those newly laid."

It is an indispensable condition of the material used for stopping the pores of the shell of the egg that it should not be capable of being dissolved by the moisture transpired from the interior, and the varnish fulfil this condition; but unfortunately, though varnish is not very expensive, it is not common in country places where eggs are most abundantly produced, while many people, besides, are not easily brought to make use of anything to which they have not been accustomed.

In order to get over this difficulty, M. Reaumur was led to try other substances, and soon found that another material, very cheap and everywhere to be had, would very well supply the place of varnish. This material was fat or grease—such as suet, lard or dripping; but the best of these was proved to be a mixture of mutton or beef suet, melted together over a slow fire and strained through a linen cloth into an earthen pan. When thoroughly melted, an egg was dipped into it, and immediately taken out again, when it was in a fit state to be kept twelve months or more. Five pounds of this melted fat might prepare all the eggs produced in a neighborhood in one season.

The chief advantage in the use of this fat, rather than varnish, is, that the eggs rubbed over will boil as quickly as if nothing had been done to them—the fat melting off as soon as they touch the hot water; whereas the varnish, not being soluble even in hot water, only becomes moistened by it, and still hanging about the egg prevents the transpiration of the juices necessary to bring the egg into that state in which it is to be eaten. When the egg, on the other hand, which has been preserved by the fat, is taken out of the water, there remains very little fatness upon it, and what does is easily wiped off upon a napkin.

The method of preserving eggs by means of fat is greatly preferable to that of varnish, when they are intended for putting under a hen to be hatched; for the fat easily melts away by the heat, while the varnish remains and impedes the hatching.

The transpiration of matter from the egg was proved to be as effectually stopped by the thinnest layer of fat as by a thick coating, so that no sensible vestige need be left on the surface of the shell. All sorts of fat, grease or oil, were found well adapted to preserve eggs. M. Reaumur used butter, hog's lard, olive oil, and similar substances, and thereby preserved eggs for nine months as fresh as the day they were laid.

There is another method of preserving eggs a long while fresh generally adopted in this country. It is as follows: Take an earthen pot, or any tight vessel, and put in a layer of fine salt, then a layer of eggs, small end down, alternately. This can only act mechanically, like bran or saw-dust, so long as the salt continues dry, for in that case the chlorine, which is the antiseptic of salt, is not evolved. When the salt, however, becomes damp, its preservative principle will be brought into action, and may penetrate through the pores of the shell.

A very excellent method of preserving eggs is to mix a bushel of quick-lime, two pounds salt, and eight ounces of cream of tartar together, adding a sufficient quantity of water, so that an egg may be plunged in to the point. When a paste has been made of this consistence, the eggs are put into it, and may be kept fresh, it is said, for two years.

The method of preserving eggs with salt we have tried repeatedly with entire success—even after two years we have found them sufficiently preserved for all culinary purposes, the shells looking as clear and white as if just laid.

HOW TO RAISE GEESE.

Mrs. S. Pillsbury, of Derry, N. H., furnishes the *New England Farmer* with her mode of raising geese. The old lady's ideas may prove useful to some of our readers:

"I recently found some inquiry in the *Farmer* about raising geese, and as I am an old hand at it, I thought I would reply. When they commence laying, which is usually in April or May, a box with bran or cotton on the bottom should be provided, so that the eggs will not roll about. As often as there is an egg laid in the box, the rest of the eggs should be turned over carefully. When the goose is done laying, and wants to set, she will make her nest, feather it, and set on it; the nest should then be taken out very carefully, and a nest made with about four quarts of horse manure, and some chaff on that; let it be made large and commodious, and then lay the nest that the goose made on the other very carefully, not disturbing the straw nor feathers. Fill it in all around the nest, making it about level, so that the goose can go on and off with ease.

"The goose sets four weeks; mind the time correctly. Two or three days previous to the time of hatching, place the eggs in a broad, deep thing, with milk-warm water enough to let them swim, and those that have live goslings in them will bob round and swim, and those that have not will sink or re-

main still; the gosling will break the shell on the end that stands out of the water.

"Do not put the eggs in water after the shell is broken, but drop some water on the gosling's bill, when the gosling is hatched and in nest dry. Take it in the hand, and with the thumb and finger press the bill open and drop in a pepper corn, and then some sweet cream; have ready some green turf; place it round the nest, and sprinkle on it some Indian dough, where the goose will pick and learn her young. They are a very tender fowl, and require care until their feathers are grown; after that they need not be feed if they run in the road.

"They can be plucked three times the latter part of the summer months. Some think it very wicked to pick them, but they shed all you pick, quills and feathers; they can be tried, and if they come hard, wait a week or two. Do not let the young go to water too soon; have a short thing for them to drink out of. If they should get chilled, take them to the fire and put warm ashes on their back, and feed them with cream with a teaspoon.

"Two geese are better than three, and one is better than two, as they are apt to beat each other; and unless they hatch altogether, they will beat the young. When I kept geese, I fed them on corn until the grass grew, and not after that until they were fatted in the fall."

HOW TO MANAGE A FRACTIOUS HORSE.

EDS. GENESEE FARMER: Mr. J. W. Brady, in the April number of the *Farmer*, inquires how to break a road horse that will not stand long enough after being "unhitched for a person to get in." (I suppose he means hitched up.) I will not pretend to answer his question exactly, for I am not much of a writer, and not as much acquainted with horse training as I should be. If Mr. Brady has spoiled the horse himself, no one can give him advice how to break it. The horse is the wiser of the two and *drives him*. If you have a colt or horse to break of a fault, you must out wit it. If a person has not as much wit as a beast, he certainly can not manage it; and if ten good advisers gave advice, he would not know how to carry it out.

I will now tell what I done this spring. I needed another horse, and went to a drover that came from Ohio and purchased a fine-looking four-year old bay horse for $165, which I thought very low in these times, but I felt quite sure he had some trick. When I attempted to drive him single I found it out. He would not drive past a house or road that he had stopped at or turned before without some difficulty, and to ride him from the barn was impossible. Now I have him broke both to ride and drive single. How I broke him I can hardly tell, better than to say I out-witted him. In the first place I broke him to ride, which I did in this way: I had two men with me; one got on him with a good raw-hide, and the others took long whips. Then came the tug. I must first describe the way he would act when we would try to ride him. If he was close to a building or a fence, he would take to that and rub you off or crush your leg. If you took him in a field, he would turn round and round, and then rear up and fall backwards, which was very dangerous. So I concluded to prevent his rearing. We would all three take good whips, and when he attempted to rear up cut away "right smart." He soon found there was too many lashes about his hind legs to stand long in that way. Then he attempted to kick us. We put it to him sharper than ever, and he soon found it best to drop that trick. The next question was how to get him away from the barn. I told the man to ride him up to the barn and try to take care of his leg, and we would soon fetch him out of that. He did so. The horse commenced rubbing, as at other times, to get him off, but on came the whips. He rubbed the barn from one end to the other, but it was of no use. He had to trot out of that. Then he rode him to the barn again. He tried to rub, but it was "no go," and he had to trot out again. Then the rider tried it alone. The horse began to rub. The rider used his raw-hide "fast and furious." He soon came out, and in a short time we had him so that we could ride him with the halter, and touch him with the strop and out he would come.

Now I was ready to put him to the buggy. I soon found that when I hit him he would kick. Some shouted "strop him down." I said no. Give me the raw-hide, and put back the top of the buggy, and I'll cut him so mighty quick that he can't kick; for while he gets ready to kick for one cut I hit him three others, and then he must get ready to kick for them; and by that time he has more cuts—so he is always getting ready and never kicks. Soon he trotted away. I now drive him to my carriage, and take my mother (eighty-one years old), and wife and two children anywhere, but as yet trust no one to drive him but myself. You see how that was done; perhaps Mr. Brady's horse should be treated quite differently. I will tell how I should treat Mr. B.'s horse, although I could judge better by driving him a little. I would put him to the plow or heavy teaming, and work him for two or more weeks, until he was as tired, as the saying is, "as an old plow horse." Then I would put him to a wagon alone, and let him go about as he pleased, (which would be much slower than at present,) and if I met a person I would stop and talk. If the horse thought best to go on, let him, but you would see before night that he would be glad to stop. Keep on in

this way for six months, stop at every house, and you will have him thoroughly broke. I know you will say at once, you want me to plow him to death and then huckster six months, and that I will not do. Very well. You keep him fat and fine, and drive him but once a week and break him, and I will be a thousand times obliged to know how you do it. A. B. W.

Stewartsville, N. J., June, 1864.

ODD JOBS.

EDS. GENESEE FARMER: Let any farmer or person of moderate means look round his house and make a careful minute of all the odd jobs he will find which require to be done. Let him take paper or a memorandum book and note them down. He will find at least twenty little matters requiring repair or amendment. The plank-way to the well or yard; the fence round the garden; a garden gate that will open easily and close of itself; repairs to the box protecting the well or cistern; mending tools, harness—and in short almost innumerable small matters all wanting to be done, either on wet days or at some leisure time. Every one who is not a natural sloven is fully aware of the necessity of attending to these matters, but the great difficulty is *he has no tools.* His experience goes to show that the last time he tried to do any thing of the kind he had to go to a neighbor and borrow some tools to work with. The saw was too close, and very much otherwise than sharp; the chisels were all too large or too small; the bit-stock had lost its spring and would not hold the bits in their place, so that he could not withdraw them, and perhaps broke some and had to buy new ones to replace them. Nothing was fit to use, and hence what he did was wretchedly done.

There being no proper awl or gimlet, he tried to drive nails without the holes being bored; splits followed just when the most of the work was done, and the look of the job was spoiled, and our poor man of odd jobs was heartily discouraged, and excused himself by determining in his own mind that he never was intended for a mechanic, and never having learned the trade could do nothing at it but make a botch, which was almost worse than leaving the job undone.

His underrating his ability was a mistake. Almost every man has a certain amount of mechanical ability, but the great drawback is *bad tools.* No good workman has bad tools. All the tools of a good workman are clean, free from rust, with good handles, and sharp as a razor. The saw is well set for green or dry wood, or he has one for each kind of work—ripping, cross-cutting or fine work. How then is it possible for an inexperienced person to do work with bad tools, or tools in bad order, when a mechanic, with all his experience, requires tools the best that can be had.

The first step which any farmer can make towards renovating or reparing his homestead is to get a set of tools—some of each kind for working in iron or wood, not forgetting a soldering-iron for mending kitchen and other tin matters, and small patching. The whole can be got up for forty dollars, and will save their value and cost in one year, besides the satisfaction of feeling independent and of helping yourself, instead of living in a mess or having interminable bills to pay.

When the tools are got, a convenient, comfortable work-shop must be provided, isolated from the farm building and house, as there is always more or less danger from fire. Put up a good solid bench with an iron vice at one end and a wooden one at the other, a block for an anvil, or some substitute for one, and a good grind-stone in one corner, with a foot-crank to turn it with; and then the first wet or stormy day, referring to your memorandum book for the list of jobs that require to be done, select the first that your wife and family require as necessary to lighten their heavy cares and continuous work and all experience goes to show that the outlay for tools will not be regretted.

Again. When your sons require employment in bad weather, there is always some little mechanical job to do in which they will soon take the greatest delight. Nothing reconciles a boy or young man more to what he has to do than to be able to do it better than others similarly circumstanced; and if there is any mechanical talent, it will develop itself wonderfully in the amateur work-shop. Then in busy times, when plows, harrows or wagons break, the loss of time in going to the tradesman is often much greater than in doing the work.

We once knew a gentleman who did all this in England for a few years before the family emigrated. On the arrival of the family in the adopted land, there was not one of the sons who could not do any ordinary job, and no part of their education was found more useful and advantageous than the knowledge of the use of tools. Losses took place. Fire destroyed their buildings in more than one instance, but their mechanical knowledge enabled them to build again, when otherwise they must have given up hope, and turned their exertions into a far lower sphere of action. A CANADIAN.

ABUNDANT crops can not be grown for a succession of years unless care be taken to provide an equivalent for at least a portion of the substances carried off the land in the products grown thereon.

THOROUGH preparation of land is absolutely necessary to the successful growth of crops.

SHORT SERMONS FOR FARMERS—No. 7.

WRITTEN FOR THE GENESEE FARMER.

AND he said, So is the kingdom of God, as if a man should cast seed into the ground; and should sleep, and rise night and day, and the seed should spring and grow up, he knoweth not how. For the earth bringeth forth fruit of herself; first the blade, then the ear, after that the full corn in the ear. But when the fruit is brought forth, immediately he putteth in the sickle, because the harvest is come.—MARK 4: 26-29.

THE illustration of man's casting seed into the ground may be applied to those who, under Christ, are teachers in the Church. This part of the parable appears to be specially applicable to them. It is their duty to sow the seed of the kingdom, and nothing else. Its germination is to be left to the wisdom and power of God. They are no more responsible for its germination in the hearts of men than the husbandman is responsible for the growth of the seed which he casts into the ground. Having done that which God requires him to do, *i. e.*, cast in pure seed, he is to believe that his word will accomplish that whereunto he sends it. "I have planted," says Paul, "and Apollos watered, but God gave the increase." The anxiety of one called of God to preach the gospel is to conform himself to God's plan of advancing his kingdom, trusting the issue wholly to him.

The operations of divine grace in the soul are secret and mysterious. They are as much beyond our comprehension as the growth of plants. "And the seed shall spring up he knoweth not how." Little is known concerning the laws and principles of vegetable life. A child may ask questions on the subject which no philosopher can answer. The seed is cast into the ground—it is hidden from sight—it undergoes changes—it springs up. But who can tell *how*, in the sense of explaining the principles and vitalities involved in the process? The principle existing in the seed, by which it germinates, is mysterious—the principle by which it pushes the right part upward and the right part downward is mysterious—the process too invisible. So the process of divine grace in the soul of man is mysterious and invisible. "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh or whither it goeth; so is every one that is born of the spirit." It is vain for man to attempt to analyze the process and develop the philosophy of the divine life begotten by the word. The messengers of God sow the seed, but God only knows its invisible process of germination. For a long time after it is sown, it frequently appears as though it were sown by the wayside to him who watches for souls. At the same time the process is going on, and in due time the tender blade appears. The people of God are often so blind as to suppose that God has almost forgotten to be gracious, when at the same time he is carrying on the invisible process of germination of the seed of the kingdom in the souls of men, and perhaps in the souls of our most intimate friends. This invisible and secret growth of the seed of spiritual life in the souls of men is the leading idea of the parable. "So is the kingdom of God as if a man should cast seed into the ground, and should sleep and rise night and day, and the seed should spring up and grow, he knoweth not how." As the process of grace in the hearts of individuals is secret and unobserved until the blade appears, so it is with respect to the kingdom of God at large. There have been periods when God was carrying on in secret, through the influence of apparently insignificant, if not unobserved causes, the process of enlarging his kingdom, when its enemies confidently anticipated and predicted its overthrow. Hence the friends of true religion have no reason to despond in the darkest time. Her enemies have no reason to rejoice when an easy triumph is apparent. God works, often, out of sight to accomplish his purposes and to defeat his enemies. Hence it often occurs that events which elate the enemies of the cross and depress its friends, issue unexpectedly in the shame of the one and in the joy of the other.

Although we do not know *how* the seed springs up and grows, yet it has a law of development—"first the blade, then the ear, then the full corn in the ear"—or, in other words, God has a uniform method by which he advances his kingdom. This uniform method by which he exercises his wisdom and power, we call the law of spiritual development in individuals and in his kingdom at large. It would be easy for God, if he saw fit, to bring the work of grace to a speedy termination by its instantaneous completion; but he chooses to take time to accomplish it. It is mysterious to us that he should have suffered his kingdom on earth so long to struggle against its enemies with so little comparative success. For some six thousand years his kingdom on earth has been struggling, and yet how few, comparatively, are its willing subjects. But his ways are not our ways. The seed of the kingdom, instead of springing up in a day, progressively and gradually develops itself towards perfection.

But grace, viewed in connection either with the kingdom of God in the world or in the individual believer, will progress to maturity. When the kingdom of God on earth is perfected in its triumph over all evil, then cometh the harvest. Then the command will go forth: "Thrust in thy sickle and reap, for the time is come for thee to reap; for the harvest of the earth is ripe." So it is with the individual believer, when he is meet for the inheritance of the saints in light—when the fruit of grace is perfected in him—when he has served his generation according to the will of God—he will be gath-

ered like a shock of corn fully ripe to the garner of the Great Husbandman. Some are called to endure the burden and heat of the day, and some to labor only for an hour. Some are not matured for years, others in a short time. God only knows when his work is accomplished in us, and we are made meet for his kingdom in glory. When that time arrives we shall be gathered.

REMARKS.—Many farmers are Sabbath school teachers. As farmers you are careful to sow pure seed. So as Sabbath school teachers you are to be careful to sow nothing but the pure word of God. As parents also, you are to teach your children—not human notions and opinions—but the unadulterated word of God. This is the seed of the kingdom. Its germination in the hearts of those you teach is the work of God. Hence you are to pray as you sow. Be not discouraged because God works out of your sight. When you least expect it, the blade may appear. Resort to no human inventions to promote the kingdom of God. The promises of success which they sometimes give are never fulfilled. Seek conformity to God's plan of advancing his kingdom, and final success is certain, however long it may be delayed.

If we find within our hearts no signs of the germination of the seed of the kingdom, let us not delude ourselves with the hope that a work of grace has been commenced in us. The fruit of grace is first inward, then outward in the life. As the seed you plant in the ground quickens out of sight, so the word germinates in secret in the heart—then the blade—then the ear.

THE LARGEST FARM IN ENGLAND.

Mr. Burritt, in his new book, describes the farm of Mr. Samuel Jonas—the largest in England—most minutely. He says:

"It is doubtful if 3,000 acres of land, lying in one solid block, could be found in England better adapted for testing and rewarding the most scientific and expensive processes of agriculture than this great occupation of Mr. Jonas. Certainly, no equal space could present a less quantity of waste land, or occupy less in hedges and fences. And it is equally certain, that no estate of equal size is more highly cultivated, or yields a greater amount of production per acre. Its occupant, also, is what may be called an hereditary farmer. His father and his remote ancestors were farmers, and he, as in the case of the late Mr. Webb, has attained to his present position as an agriculturist by practical farming.

"Mr. Jonas cultivates his land on the "Four course system." This very term indicates the degree to which English agriculture has been reduced to a precise and rigid science. It means here, that the whole arable extent of his estate is divided equally between four great crops; or, wheat, 750 acres; barley and oats, 750; seeds and pulse, 750; and roots, 750. Now, an American farmer, in order to form an approximate idea of the amount of labor given to the growth of these crops, must remember that all these great fields of wheat, oats, barley, turnips, beans, and peas, containing in all over 2,000 acres, are hoed by hand once or twice. His cereals are all drilled in at 7 inches apart, turnips at 17. The latter are horse-hoed three or four times; and and as they are drilled on the flat, or without ridging the surface of the ground, they are crossed with a horse-hoe with eight V shaped blades. This operation leaves the young plants in bunches, which are singled out by a troop of children. One hand-hoeing and two or three more horse-hoeings finish the labor given to their cultivation. It is remarkable what mechanical skill is brought to bear upon these operations. In the first place, the plow cuts a furrow as straight and even as if it were turned by machinery. A kind of *esprit de corps* animates the plowmen to a vigorous ambition in the work. They are trained to it with as much singleness of purpose as the smiths of Sheffield are to the forging of penknife blades. On a large estate like that occupied by Mr. Jonas, they constitute an order, not of Odd Fellows, but of Straight Furrowmen, and are jealous of the distinction. When the ground is well prepared, and made as soft, smooth, and even as a garden, the drilling process is performed with a judgment of the eye and skill of hand more marvelous still. The straightness of the lines of verdure which, in a few weeks, mark the tracks of the seed-tubes, is surprising. They are drawn and graded with such precision that, when the plants are at a certain hight, a horse-hoe, with eight blades, each wide enough to cut the whole intervening space between two rows, is passed, hoeing four or five drills at once. Of course, if the lines of the drill and hoe did not exactly correspond with each other, whole rows of turnips would be cut up and destroyed. I saw this process going on in a turnip field, and thought it the most skilful operation connected with agriculture that I had ever witnessed.

"A fact or two may serve an American farmer as a tangible measure whereby to estimate the extent of the operations thus conducted by one man. To come up to the standard of scientific and successful agriculture in England, it is deemed requisite that a tenant farmer, on renting an occupation, should have capital sufficient to invest ten pounds, or fifty dollars, per acre in stocking it with cattle, sheep, horses, farming implements, fertilizers, &c. Mr. Jonas, beyond a doubt, invests capital after this ratio upon the estate he tills. If so, then the total

amount appropriated to the land which he *rents* cannot be less than £30,000, or nearly 150,000 dollars. The inventory of his live stock, taken at last Michaelmas, resulted in these figures: sheep, £6,481; horses, £2,487; bullocks, £2,218; pigs, £452; making a grand total of £11,638. Every animal bred on the estate is fatted, but by no means with the grain and roots grown upon it. The outlay for oil-cake and corn purchased for feeding, amounts to about £4,000 per annum. Another heavy expenditure is about £1,700 yearly for artificial fertilizers, consisting of guano and blood-manure. Mr. Jonas is one of the directors of the company formed for the manufacture of the latter.

"The whole income of the establishment is realised from two sources—meat and grain. And this is the distinguishing characteristic of English farming generally. Not a pound of hay, straw or roots is sold off the estate. Indeed, this is usually prohibited by the conditions of the contract with the landlord. So completely has Mr. Jonas adhered to this rule, that he could not give me the market price of hay, straw or turnips per tun, as he had never sold any, and was not in the habit of noticing the market quotations of these products. I was surprised at one fact which I learned in connection with his economy. He keeps about 170 bullocks; buying in October and selling in May. Now, it would occasion an American farmer some wonderment to be told that this great herd of cattle is fed and fatted almost entirely for the manure they make. It is doubtful if the difference between the cost and selling price averages £2, or ten dollars per head. For instance, the bullocks bought in will average £13 or £14. A ton of bruised cake and some meal are given to each beast before it is sent to market, costing from £10 to £12. When sold, the bullocks average £24 or £25. Thus the cake and the meal equal the whole difference between the buying and selling price, so that all the roots, chaff and attendance go entirely to the account of manure. These three items, together with the value of pasturage for the months the cattle may lie in the fields, from October to May inclusive, could hardly amount to less than £5 per beast, which, for 170, would be £850. Then £1,700 are paid annually for guano and artificial manures. Now add the value of the wheat, oat and barley straw grown on 1,500 acres, and mostly thrown into the barn-yards or used as bedding for the stables, and you have one great division of the fertilizing department of Chrishall Grange. The amount of these three items cannot be less than £3,000. Then there is another source of fertilisation nearly as productive and valuable. Upwards of 3,000 sheep are kept on the estate, of which 1,200 are breeding ewes. These are folded, acre by acre, on turnips, cole or trefoil, and those fattened for the market are fed with oil-cake in the field. The locusts of Egypt could not have left the earth barer of verdure than these sheep do the successive patches of roots in which they are penned for twenty-four or forty-eight hours, nor could any other process fertilize the land more thoroughly and cheaply. Then 76 horses and 200 fattening hogs add their contingent to the manurial expenditure and production of the establishment. Thus the fertilizing material applied to the estate cannot amount to less than £5,000, or 24,000 dollars per annum.

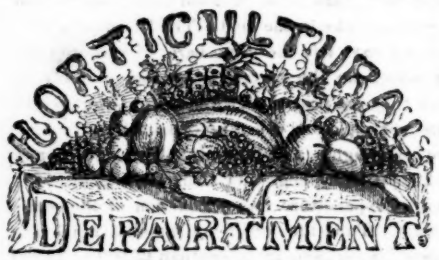
"Sheep are the most facile and fertile source of nett income on the estate. Indeed, nearly all the profit on the production of meat is realized from them. Most of those I saw were Southdowns and Hampshires, pure or crossed, with here and there a Leicester. After being well fattened, they fetch in the market about double the price paid for them as stock sheep. About 2,000, thus fattened, including lambs, are sold yearly. They probably average about £2, or ten dollars per head; thus amounting to the nice little sum of £4,000 a year, as one of the sources of income."

SUGGESTIONS TO GROWERS OF "YE WEED."

We have not forgotten that numerous correspondents have made inquiries concerning the culture and management of tobacco plants. Those interested will give their attention to the following hints from *The Maine Farmer* appropriate to the season:

One of the essentials of the successful culture of tobacco—as indeed it is of all other crops—is a fine, mellow soil. During the early stages of the growth of the plants, the soil needs to be constantly stirred, the dry earth about the plants taken away, and moist, fine soil drawn around the stalk. Weeds should be kept down, for if permitted to grow they will injure the lower leaves of the plants; and the worm, which prays upon the plants, eating through the leaves, should be carefully watched and destroyed. The tobacco worm does not make its appearance usually until about the first week of July.

We saw several beds of tobacco plants last season which were worthless, simply because, not understanding how to manage them, the main stalk had been allowed to grow, and the leaves were as unfit for use as those of the mullein. *Topping* or cutting off the main stalk should be performed as soon as the blossoms appear, taking off about seven of the top leave with the stalk, leaving from nine to fifteen leaves, according to the strength of the plant. The top of the stalk can be removed with the thumb and finger nails. All that is requsite after this until the plant is fit to cut, is to keep it from being eaten by worms, and pull out the suckers that grow out at the junction of the leaves to the stalk. These suckers put forth only twice at the leaves, but after that indefinitely and continually from the root; and it is thought injudicious ever to let them get more than a week old, for besides absorbing the nutriment necessary to push forward and increase the size and thickness of the leaf, the breaking them off when of a large size makes so great a wound as greatly to injure the after-growth of the plant.



GARDEN WORK FOR JULY.

Now is the season of danger to the garden! Harvest and haying are crowding upon the farmer, taxing his energies to the utmost, requiring all the labor he can command. The artisan, whose usual labor is in the work-shop, feels too much enervated by the heat of the day to spend his accustomed hour after tea hoeing and weeding in the garden. The amateur finds it no longer a work of *love* to dig under a broiling July sun. The consequence is, the garden that has been kept neat and clean up to this period, is very liable to become overrun with weeds.

It is folly to give up the battle when so near Richmond, because new obstacles interpose. A little more courage—a little more persistence, and the day is ours.

Asparagus—Has now given place to green peas. If the bed is covered over with grass, give it a shallow hoeing, and stimulate it after its exhaustion with a light dressing of bone-dust, or any fine manure.

Beets—Although rather late, the Early Blood Turnip beet may yet be sown for winter use.

Beans.—The early sorts may be sown the first of the month for string-beans, or to be used with green corn, making that delectable dish called succotash—a name which will revive in many a Yankee memories both pleasant and painful—pleasant in view of the gustatory delight it afforded—painful in view of the effects of indigestion, from over-eating.

Cabbages.—Transplant to fill up any vacancies occasioned by the removal of early vegetables.

Celery—May be transplanted into trenches all this month. Don't be afraid of getting the trenches too rich, and if dry water freely and hoe often.

Carrots.—The Early Horn may be sown early in the month with a fair chance of maturing.

Cucumbers.—There is yet time to sow for pickles. Old hills destroyed by bugs may be resown.

Melons.—Hurry them forward by the free use of water or liquid manure. The melon is peculiarly adapted to the system in hot weather—but if neglected it hardly ripens in this latitude until hot weather is past.

Peas.—I suppose that most of my readers were able to eat a dish of green peas from their vines by the middle of June. As soon as they are through bearing, the vines should be gathered and threshed. The peas are not suitable for seed, as they are generally the *cullens* of the patch, but are valuable for feed for swine, or any other animal that will eat them.

Potatoes—Should receive their last hoeing before falling over. If weeds afterward come up, they should be pulled up by hand. In digging new ones for the table, select the hills having the fewest and largest stalks, as they contain the largest potatoes. It is wasteful to dig them before they are full grown.

Tomatoes.—This greatest luxury of the garden will begin to ripen about Rochester the latter part of July. To hasten their maturity, cut back the leading shoots to let in the sun and throw the sap into the fruit.

Turnips.—Sow the early part of the month the Ruta-baga and Yellow Aberdeen, the White Flat and Red-top Strap-leaf the latter part. They may be sown in drills fifteen inches, or the latter two broadcast.

Strawberries—Will be through bearing the latter part of the month, and will be benefited by a dressing of fine manure.

Grapes.—Keep them growing, thinning out superfluous shoots and reducing the number of bunches.

The season with me has been about as forward as usual, the frequent rains not affecting my light sandy soil as they did the heavier one of the Editor of the *Farmer*. I was obliged to stop work, of course, while it was raining, but resumed it almost immediately when it ceased. Still I would prefer not to work even sandy soils until they have dried off some.

May was unusually warm this season, but June is rather cold. I have now, the 16th, green peas well filled, and cucumbers, started on sods in hot-beds, nearly large enough for pickles. Strawberries and cherries are a little behind this year. Upon the whole I think we have the promise of a pretty fruitful season. R.

LIME FOR THE MELON BUGS.—Are you troubled with the little striped bug on melon and other vines? and if so, what is the remedy? I have tried Scotch snuff, and was partially successful with coal-tar. Some two or three years ago a friend of mine, Dr. Johnson, of Brooklyn, patented the article, or its mode of preparation in connection with sand, so as to make the use of it simple and harmless to the plant. This has failed here, from the abundance of the bugs or their extreme greediness this season; and on the recommendation of a neighbor I have tried fine air-slaked lime, dusting it on the plants through a fine wire seive. The lime answers better than any other article I have yet used.—E. A. SMITH, *Suffolk county, L. I.*

TREES FOR SHELTER.

EDS. GENESEE FARMER: The advantages of shelter for cattle have been pretty well discussed in your journal and other agricultural papers, and its advantages and economy, to say nothing of its humanity, are pretty generally conceded; but the advantages of shelter or protection to fruits and grains are not so well understood.

In the Western States the great drawback to successful fruit culture, especially in the prairie regions, is the strong winds. Every tree, and almost every shrub and plant, "shows which way the wind blows," and in Illinois and Southern Wisconsin practical farmers have learned the economy of planting trees for protection; but we of Michigan, having more trees than we know what to do with, have not learned the advantages we derive from them, but may yet learn that the oak grubs, which we so much hate, and so perseveringly combat, cause, in a great measure, the wide difference in the effect of winds between our State and Illinois. True, our winds come to us in winter very much modified in temperature by passing over Lake Michigan, and to this is owing the peculiar adaptation of our climate for fruit; but as to their *force* I know of nothing but our trees that prevents their being as destructive in that respect as in Illinois. Hills, mountains, buildings and high fences obstruct the force of the winds; but for some reasons, not so easily given, they are not so good a protection to fruit trees and crops as trees. If one fails to *see* why, he can hardly fail to *feel* that even a row of leafless trees in winter produces a great effect on the temperature of the air, and if *at all observing* we *feel* the truth of the statement of Boussingault, that trees in winter give off heat, while they absord it, and cool the air in summer. It seems hardly possible that a few leafless branches should so *obstruct* the wind as to produce the great change of temperature that we feel in winter, in coming from the open prairie or plain into a section protected by trees; and thus our observation and experience, if not our theory and our reason, must convince us of the truth of Boussingault's statement. My experience in relation to winds thus far in this country is, that trees are the best protection, and that of fences, a picket or panel fence is better than a tight one, if equally high. I have this season six large thrifty peach trees, all of different varieties, that have already been out three seasons, are protected on the south from the warm spring sun, and on the west, north and east by a six feet tight board fence, and though fruit buds have set on them every season, not one has yet opened. I have one hundred and twenty-five other peach trees one year younger, twenty rods east, and the same distance south, from a hedge two rods wide of oak grubs from eight to fifteen feet high, many of which have blossomed and have fruit on them this season.

A fact being established at variance with our previous notions, sets the thinking man to work to establish a theory, or at least he undertakes to find the *rationale* of the fact. Winds, or at least breezes, undoubtedly promote the growth of plants. They take a portion of their nutriment from the air, and of course when the air circulates they have access to more of it than when it is still. Trees and open fences do not *stop* the wind, but merely break its force. Trees not only do this, but in the heat of summer they cool the air, and in the winter warm it as it passes them. Hills, buildings and tight fences prevent the circulation of air, in a measure, and in the spring and fall frosts. They are thus often a great injury. In this State most of our new lands are covered with oak grubs or bushes, and farmers generally, as fast as they are able, dig them all out, root and branch. *Don't do it.* Leave a border on the west and north sides of one or two rods to grow up, and if your farm is over eighty rods wide east and west have another hedge or screen, but take them out clean where you plow. The oak is the very best of deciduous trees for that purpose. It does not shed its leaves until extreme cold weather, and some varieties not until spring. S. B. P.

Muskegon, Mich., June, 1864.

THE BALSAM.

THERE is no plant more beautiful than the Balsam, but very few know how to cultivate it so as to have it constantly improving instead of deteriorating. The following will enable any one, with ordinary care, to obtain the finest kinds, from those which are quite ordinary.

First, saving the seed. If your plants are very double they must be grown so early as to ensure a *second bloom.* The first and best blooms of the very double ones seldom bear seed.

If the plants show an inclination to branch, prune off the side shoots to throw the full vigor of the plant into the center stem.

Save your seed from the *center shoots only,* and as low down as possible. Never take seed from the branches (if allowed to grow), nor from the top of the middle spike.

By following this plan for three years, the plants will hardly branch at all, and you will have a glorious center spike of flowers.

Hybridizing.—Procure some of the best double Rose Balsams. Plant the colors you wish to make more double than they now are close round the rose plants, and either mix the pollen with a camel-hair pencil, or let the bees do the work. You will thus obtain handsome double colored varieties, such as

purple, scarlet, mottled, and others. The Rose Balsam has the power of increasing the *double* of the blooms of all the others.

Transplanting.—If you set out the plant very young they check very easily, and are a long time recovering. The best way is to sow the seed thinly in the hot-bed, and let the plants stand until they begin to show for flowers, and the second class of roots begin to start. Then you can remove them with a large ball of earth, and with the best possible success. You can thus select the double flowers, and save time and border room.

Bear in mind the maxim that "branch seeds will bring forth branching plants," and by sowing branching seed for two or three years, you get a *bush* instead of a handsome plant. The branches bear more seed than the center; hence they are generally saved.

You can not have the ground too rich for Balsams, provided the manure is well rotted and mixed with the soil. They care little what kind is used.

Five years of care, with these maxims before you, and you will beat all competitors who do not follow the same rules. *

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

THE Summer Meeting of this Society was held in this city June 23. There were not as many present as usual, and the exhibition of fruits was comparatively small.

The following subjects were discussed:

1. *What are the requisites for the successful cultivation of the strawberry in all seasons—wet, dry and otherwise?*

H. N. Langworthy—The soil should be well drained and enriched and the beds be made as deep and as fine as possible. A wet, undrained soil is not suitable.

The question was asked whether there was any profitable means of watering the strawberry in seasons of drouth like the present.

Mr. Kennedy alluded to a large market gardener near Chicago, who cultivated the strawberry very successfully on light sandy soil, by the free use of water obtained from hydrants. He obtained berries of large size and very heavy crops.

Charles Downing mentioned a similar instance in Westchester county in this State. The berries were very large and commanded a high price in New York.

Geo. Ellwanger thought that as a general rule, if the plants were set out in rows three feet apart, and the runners kept off, and the cultivator and hoe freely used through the season, there was little danger of injury from dry weather.

Mr. Moore, of Brighton, thought the short crop this season was not so much owing to the drouth as to the cold winds in the spring blasting the blossoms.

Mr. Moody, of Lockport, said that the cold weather in January last, accompanied with such severe wind, killed the strawberry plant. Many acres had been plowed under in his neighborhood.

Mr. Hoag, of Lockport, thought strawberry plants in hills were more liable to winter-kill than when allowed to run and occupy the ground.

H. E. Hooker was of the same opinion.

2. *What is the result of another year's experience with the Russell Prolific Strawberry?*

Mr. Schuyler, of Seneca Falls, said it proved very hardy and productive. He thought that with good treatment 400 bushels per acre could be obtained. He would set them in rows two feet apart and the plants sixteen inches apart in the rows, and allow no runners to grow.

H. E. Hooker spoke of its great productiveness from what he saw of it last season. He thought it was clearly a pistilate variety and would consequently require some staminate variety to fertilize it. He thought it would fertilize more readily than its parent—the McAvoy Superior.

J. J. Thomas agreed with Mr. Hooker on these points. He also spoke of its productiveness.

Mr. Keitch, of Waterloo, spoke strongly in favor of the Russell. Admitting that it needed a fertilizer, what was easier than to set out a plant of Wilson or other staminate sort to each twenty-five plants of the Russell? This would insure a crop.

Mr. Hoag, of Lockport, thought it was very productive.

Mr. Smith, of Geneva, also spoke of its great productiveness. In quality it was hardly equal to Triompe de Gand, but better than Wilson's Albany.

3. *What treatment should the strawberry plant receive before setting out, also how deep planted?*

H. N. Langworthy—Cut off the roots from three to four inches in length. Then, if they have been obtained from a distant nursery, dip them in clay water up to the crown. Set them in the holes as deep as you can without smothering the crown.

J. J. Thomas had made an experiment this spring. He set out some rows in the ordinary way with the roots close together in a mass, and some rows with the roots carefully spread out. It was but little more labor. The plants set out in this way did very much better than the others. The growth up to this time had been *twice as great!* He believed it would pay to do things in the best manner.

4. *What is the average period of popularity of the different highly lauded varieties of the strawberry?*

J. J. Thomas had given some attention to this subject for many years, and thought that with the exception perhaps of one in twenty, *five years was the average duration of popularity* of any highly

lauded fruit. Cultivators who pay a high price for a few plants of a new variety of fruit take good care of them for a few years and consequently obtain excellent crops. When the plants become plentiful and cheap, and get into general cultivation, they receive nothing more than ordinary care and turn out to be no better than ordinary varieties.

H. E. Hooker asked if there was any truth in the idea that varieties of plants deteriorate. Formerly he used to raise excellent crops of Hovey's Seedling strawberry, but can not do it now.

Mr. Moore — Hovey's strawberry is certainly a humbug.

Mr. Barry said at Boston the Hovey is the best variety grown. Dealers cared for no other. They would not look at a Wilson. He supposed climate and soil made the difference. It took several years to test the character of new fruits, and they ought not to be recommended till they had been fairly tried.

5. *What are the best varieties of hardy grapes for wine making?*

Mr. Moody, of Lockport, thought the Delaware would make a nice sweet wine that would suit the taste of most Americans. Old wine drinkers might require some other variety mixed with it. Had made some good wine, without sugar, from Diana.

6. *What are the best grapes for marketing?*

Mr. Hoag, of Lockport, named Hartford Prolific and Delaware as the most profitable market kinds. Concord not so profitable on account of its cracking on the way to market.

Mr. Reynolds said the Concord did not adhere well to the stem, but by wilting it a little before packing it could be sent to market in good condition, and then, on account of its fine appearance, it would sell for a high price. Had seen it sell in New York for 40 cents per pound.

7. *Which varieties are the best keepers?*

Charles Downing was called upon. He said he had never succeeded in keeping grapes.

H. N. Langworthy, who is quite successful in keeping grapes, said his method was simply to put them in boxes holding five or six pounds each, boring a few holes in the bottom and sides.

Mr. Fish had kept the Isabella till the first of April. Diana would keep better than any other kind. Concord is a poor keeper.

Mr. Ross sawed a barrel in two and nailed on a rope for a handle. These half barrels he fills with grapes and puts them up stairs in a clothes press in the center of the house where they will not freeze. He has kept Isabellas till March.

J. J. Thomas said the great point in keeping grapes was to have them well ripened before picking. If a man succeeds in keeping his grapes it is an evidence that he is a good cultivator.

8. *What soil is best adapted to the growing of grapes?*

H. N. Langworthy—All soils will grow good grapes if in good order.

Mr. Moody thought *for wine*, a rather heavy, well drained clayey soil was desirable.

Mr. Barry said that a few years ago it was thought that a sandy soil was best, and it was usual to select a sandy knoll for a vineyard, but now a rather stiff loamy soil is considered preferable.

9. *Which is the best recently introduced apple that has been tested and can be recommended for family use and marketing?*

Tompkins County King was named by several gentlemen, and it seemed to be the favorite of the meeting. Some of the members said it dropped from the tree, and that it should be picked ten days earlier than other winter apples.

10. *Do hogs in an apple orchard benefit the fruit by way of destroying the apple insect?*

H. N. Langworthy had kept hogs in his apple orchard for eight years and thought the fruit was as much affected with insects as ever. The larvæ of the insect which stings the fruit works its way out before the apple falls, and therefore the hogs by eating up the fruit do no good. The hogs are a nuisance in the orchard. If they would root over the ground evenly they might do some good, but they will not. They root deep holes and leave the orchard in a very unsightly and unpleasant condition. An old sow, if the branches of the trees are low, will rear up on her hind legs and shake off several bushels of fruit and then eat them up. He has known a sow shake twenty bushels from a tree!

J. J. Thomas said hogs were useful in the early part of the season by eating up the stung fruit and the larvæ of insects that were in them.

Mr. Barry concurred in this opinion, and thought that when it was not convenient to turn in hogs, the fallen fruit of all kinds, such as pears, plums, cherries, apples, &c., should be swept up and burnt, and in a few years we should by this means greatly lessen the number of insects.

11. *What is the best protection against cold winds for an amateur garden of one acre or more, to include all kinds of tree fruits, on dwarf stocks, and especially grapes, and other small fruits?*

H. N. Langworthy said if he had not time to raise hedges he would make a tight board fence six feet high round the garden. This would keep off the winds, and at the same time grape vines could be trained to them. He knew of nothing so good for grapes as a tight board fence. He would even put them inside the garden, two or three rods apart, running east and west, and train grapes to them. They would afford splendid protection for other crops and you could also raise the finest of grapes.

Mr. Fish thought they would shade the garden too much.

H. N. Langworthy—"They would shade it somewhat, but they will pay."

J. J. Thomas was in New Jersey a few days ago, and Isaac Pullen of Hightstown called his attention to the effect of a screen made by some trees left in a nursery row. They made a belt of trees, twenty feet high. You could see the beneficial effects of this belt for twenty rods or more. Mr. Pullen said the crops of all kinds were fifty per cent. better than where they were exposed to the winds.

Mr. Moody would set out Norway spruce. They cost but little, grow rapidly, and being evergreen afford protection in winter as well as in the spring and summer. You can set them out six feet high, so that you would not have long to wait for a sufficient protection. He thought if such screens were set out round our orchards and gardens we could raise peaches as successfully as when the country was new.

Mr. Barry also thought it was better to set out evergreens. The beneficial effect of such a screen was well known to every observing horticulturist.

12. *Seeing that varieties of fruit which* compel *good culture, are a benefit to the community, by teaching the best management, should not such as grow without culture be repudiated as retarding improvement.*

Little was said on this subject. We suppose the question was intended to combat the too prevalent idea that fruits which will bear neglect and bad treatment are to be preferred to those which require more careful culture.

RASPBERRY CULTURE.

Eds. Genesee Farmer: Who ever saw such a crop of raspberries in a garden as they see in fence corners and partially cleared pasture-fields, where you can almost fill a pail within a range of ten feet, and where, in a few days following, you will secure a similar quantity, and so on through the season? The berries (according to their kind) are equally large as if grown in a garden and under culture, and yet, in the face of this fact, we go on year after year, at great expense and trouble, digging and hoeing, and pruning and staking, and doing all kinds of things to our garden beds, until any one can purchase twice the quantity of berries which they raise with the amount which it has cost in hard labor to raise them.

I have seen garden raspberries raised like wild raspberries, and with equal success, without expense of culture, and in ten times the amount. Let them come up and grow as they will. Keep paths cut through the beds so as to admit the gatherers easily. Never dig or disturb the roots, but every winter *manure thoroughly*. You will have five times the crop with one-fourth of the cost. Your beds may wear out in a few years, but this can be remedied by allowing the suckers to spread as they like on one side of the bed, cutting up the old plants as they fail on the other. Your bed will thus advance about four feet each year, and you can, if you please, destroy an equal quantity on the other side. Pile on good, well-rotted manure every winter among the canes, and let the sorts be what they may, you will secure the largest, earliest and best crop to be had. They will grow so thick as to prevent winter-killing, or if necessary large sticks and poles may be put on the canes in the winter to keep them from blowing about. It is the *blowing about when frozen* that kills the canes. For appearance sake, you must of course get out as much of the old wood as possible each year. Try it in some out-of-the way corner—but remember the manure.

To make Tree Mignonnette for the House in Winter.—Select the finest plants, and set them separately in pots, gradually increasing the size of the pot without breaking the ball of the former potting. Never break the ball in transplanting Mignonnette. The roots are very long, and do not readily grow again. Train the plant to a single stem until three inches high, then let it branch. Keep it well watered, and take care that the soil is good. As soon as the flowers show signs of setting into seed, pluck them off singly, and others will come. As often as the seed-pods show of any size in the center of the flower, pluck them off. It does not spoil the beauty of the plant, for others come out at once. Never destroy a leaf, or gather bunches of flowers. You will, by following this plan, get quite a little tree, and the plant will last from two to three years and keep up a constant bloom. The stem will become quite woody, and not at all like Mignonnette. It is one of the prettiest house flowers that can be grown. Its fragrance is constant, and if the directions are well followed the blooms constantly increase in size. One seed pod ripening will kill the plant.

Hyacinths.—Hyacinths, tulips and other flowering bulbs, should be taken up the present month, or as soon as the leaves have withered or turned yellow. Put them in an airy situation in the shade until they are quite dry. Then rub off any soil that may adhere to them and the dry, fibrous roots, and lay the bulbs, with the neck downwards, in an open basket, and hang it in an airy shed. Examine them occasionally, and if any signs of decay appear, remove the affected bulb, or it will communicate the disease to the other bulbs. If it is not more than a small blotch, cut it out with a knife, and put the bulb in a dry place by itself.

Set them out again in October.

The young bulbs formed the present season should be treated in the same way. If planted in rich soil, and not allowed to flower for a year or two, they will make large bulbs.

Young People's Page.

EDS. GENESEE FARMER: We have been trying, during some of the rainy evenings this spring, a game which was new to us. We learned it from a friend who has been staying with us from the city. It seems very simple, but is quite interesting. Take any word and make as many others out of it as possible, not using all the letters unless you choose. I send you a list of words that we have made to-day out of "Enlargement." Will some of your readers try to add some more to our list, and if they succeed in making any more out of another word, let us know through your columns.

M. M. W.

At.	Gnarl.	Mental.
Ate.	Glen.	Malt.
Are.	Gentle.	Mere.
Art.	Galen.	Mat.
An.	Gent.	Mare.
Am.	Gem.	Man.
Ale.	Glare.	Melt.
Age.	Large.	Mantle.
Arm.	Late.	Magnet.
Anger.	Lear.	Neat.
Amen.	Leer.	Net.
Angel.	Lament.	Near.
Agent.	Let.	Name.
Agree.	Lent.	Nag.
Alter.	Lane.	Rat.
Altar.	Lame.	Rig.
Agreement.	Leg.	Rent.
Elegant.	Lag.	Remnant.
Element.	Lee.	Rage.
Eagle.	Learn.	Real.
Eel.	Leman.	Reel.
Eat.	Lean.	Raw.
Ear.	Lantern.	Rant.
Earn.	Lenten.	Ream.
Eager.	Manger.	Rate.
Eaten.	Meager.	Tear.
Enamel.	Mean.	Tea.
Emerge.	Merge.	Tar.
Enlarge.	Male.	Tan.
Engage.	Mate.	Tale.
Entangle.	Mart.	Teem.
Great.	Men.	Team.
General.	Met.	Tame.
Grant.	Meat.	Tamer.
Grate.	Meant.	Ten.
Game.	Mangle.	Tag.
Garment.	Mane.	Term.
Gate.	Meter.	Tent.
Gear.	Mange.	Time.
Gnat.	Metal.	Tangle.

CAREFULNESS NOT MEANNESS.—To be careful is not to be mean. Meanness is a vice and impolitic, not less than prodigality and carelessness. The proverb well says that "The penny soul never came to two pence." Generosity and liberality prove the best policy. Looking at the most conspicuous examples of men who have raised themselves from an humble position to affluence and eminence, we find that they have generally been liberal men—men whose conduct has been as remote from meanness and shabbiness as carelessness and prodigality.

WHY are people born deaf the most virtuous of human beings? Because they *never erred* (heard).

WHEN did Moses sleep five in a bed? When he slept with his fore-fathers.

"DOLLY MAY."

[From the New York Independent.]

I've a darling little Dolly, and her eyes are black as sloes;
She lounges on the sofa night and day,
And never cares a bawbee for the mending of her clo'es,
Nor quarrels with the children at their play.
Oh! my bonny Dolly May! how I love you all the day;
How I prattle to and kiss you! none the less
That I can but feel the lack when you never kiss me back,
Nor caressingly return my caress.

Though my Dolly is a beauty, she is neither proud nor vain;
Will never, like Miss Shallow, put on airs,
But a quiet little lady will evermore remain,
Undisturbed by our troubles or our cares.
Oh! my darling Dolly May is the sharer of my play,
And her eyes seem to watch me as they roll,
Like a living baby's eyes, with a questioning surprise,
Till it seems as if Dolly had a soul.

She is older than her mother! Funny, isn't it? and queer?
But she never disobeys me though 'tis so.
Never pouts when I reprove her, nor squeezes out a tear
With her knuckles, like some little girls you know.
Oh! my pretty Dolly May, I shall sorrow for the day
When the fancies of my childhood are o'er,
And the crabbed Mrs. Grundy says, "Oh, fie! you mus'nt play,
Such a lady! with your Dolly any more."

THE LITTLE BOASTER.

WALTER THORNDIKE was a little boy who was never satisfied with telling a straight-forward story. He was always obliged to invent a little to add to it, so that it might sound rather more wonderful. For instance, if he passed through a field in which there were one or two cows feeding, he would come home and say, "O mother! I came through *a whole herd* of cattle this morning, and there did not one of them touch me!"

Thus you see he told a story which was almost entirely untrue, although he only meant to make his mother think he was a very brave boy, and I dare say he would have been very much displeased if any one had told him that he had told a falsehood.

His parents tried in a great many ways to cure him of this bad habit, but they did not succeed very well. One day, however, his father had given his elder brother Johnny some work to do out in the barn. It was to sort over a large box of nails, laying the different kinds in separate piles. "I think, Johnny," said his father, "that you can get it done in an hour, if you keep on steadily."

"O father!" cried Walter, "I wish you had told me to do it instead: *I* could do it in ten minutes, I know."

"Very well," said Mr. Thorndale, "you shall do it; but if it is not all done in ten minutes, I shall not take you with me to your grandfather's, to spend the day, as I expected to."

Of course Walter could not finish the nails in so short a time, and so he lost his pleasant visit. For a long time after that, whenever he wished to exaggerate a little, he remembered his disappointment, and only said what was actually true.

My first is a dirty little brute;
My second's at the end on't;
My whole, like many an honest man,
Is on a fool dependent. *Pig tail.*

WE hear of the mother of pearl. Who was the father? The venerable Bede.

IF you should plant the figure four, what vine would come up? I. V. (Ivy.)

Ladies' Department.

Mrs. Stowe, in her "House and Home Papers," in speaking of the habits of our grandmothers, paints a picture which is so attractive that one is half inclined to save the two dollars a week now given to a cook and spend it for books, and try to become as healthy and intelligent as the dignified Puritan ladies, who made New England and indeed the United States what it is:

"There were to be seen families of daughters, handsome, strong females, rising each day to their in-door work with cheerful alertness—one to sweep the room, another to make the fire, while a third prepared the breakfast for the father and brothers who were going out to manly labor; and they chatted meanwhile of books, studies, embroidery, discussed the last new poem, or some historical topic started by graver reading, or perhaps a rural ball that was to come off the next week. They spun with the book tied to the distaff; they wove; they did all manner of fine needle-work; they made lace, painted flowers, and, in short, in the boundless consciousness of activity, invention, and perfect health, set themselves to any work they had ever read or thought of. A bride in those days was married with sheets and table-cloths of her own weaving, with counterpanes and toilet-covers wrought in divers embroidery by her own and her sisters' hands. The amount of fancy-work done in our days by girls who have nothing else to do will not equal what was done by these, who performed besides, among them, the whole work of the family."

Further on Mrs. Stowe speaks of the working of this system in our days, and says truly:

"I will venture to say that there are at least, to speak very moderately, a hundred houses where these humble lines will be read and discussed, where there are no servants except the ladies of the household. I will venture to say, also, that these households, many of them, are not inferior in the air of cultivation and refined elegance to many which are conducted by the ministration of domestics. I will venture to assert, furthermore, that these same ladies who live thus, find quite as much time for reading, letter-writing, drawing, and fancy-work, as the women of families otherwise arranged. I am quite certain that they would be found on an average to be in the enjoyment of better health, and more of that sense of capability and vitality which gives one confidence in one's ability to look into life and meet it with cheerful courage, than three-quarters of the women who keep servants—and that on the whole their domestic establishment is regulated more exactly to their mind, their food prepared and served more to their taste. And yet, with all this, I will *not* venture to assert that they are satisfied with this way of living, and that they would not change it forthwith, if they could. They have a secret feeling all the while that they are being abused, that they are working harder than they ought to, and that women who live in their houses like boarders, who have only to speak and it is done, are the truly enviable ones.

"There, after all, is the rub. A want of hardy self-belief and self-respect—an unwillingness to face with dignity the actual facts and necessities of our situation in life—this, after all, is the worst and most dangerous feature of the case.

"I fancy now, my friends, whom I have in my eye. You are three happy women together. You are all so well that you know not how it feels to be sick. You are used to early rising, and would not lie in bed, if you could. Long years of practice have made you familiar with the shortest, neatest, most expeditious method of doing every household office, so that really for the greater part of the time in your house there seems to a looker-on to be nothing to do. You rise in the morning and despatch your husband, father, and brothers to the farm or wood-lot; you go sociably about chatting with each other, while you skim the milk, make the butter, turn the cheeses. The forenoon is long; it 's ten to one that all the so-called morning work is over, and you have leisure for an hour's sewing or reading before it is time to start the dinner preparations. By two o'clock your house-work is done, and you have the long afternoon for books, needle-work or drawing—for perhaps there is among you one with a gift at her pencil. Perhaps one of you reads aloud while the others sew, and you manage in that way to keep up with a great deal of reading. I see on your book-shelves Prescott, Macaulay, Irving, besides the lighter fry of poems and novels, and, if I mistake not, the friendly covers of the 'Atlantic.' When you have company, you invite Mrs. Smith or Brown or Jones to tea; you have no trouble; they come early, with their knitting or sewing; your particular crony sits with you by your polished stove while you watch the baking of those light biscuits and tea-rusks for which you are so famous, and Mrs. Somebody-else chats with your sister, who is spreading the table with your best china in the best room. When tea is over, there is plenty of volunteering to help you wash your pretty India tea-cups, and get them back into the cupboard. There is no special fatigue or exertion in all this, though you have taken down the best things and put them back, because you have done all without anxiety or effort, among those who would do precisely the same, if you were their visitors.

"But now comes down the pretty Mrs. Simmons and her pretty daughter to spend a week with you, and forthwith you are troubled. Your youngest, Fanny, visited them in New York last fall, and tells you of their cook and chambermaid, and the servant in white gloves that waits on table. You say in your soul, 'What shall we do? they never can be contented to live as we do; how shall we manage?' And now you long for servants."

Mrs. Stowe goes on to say most truthfully that it is all this that the city lady has come to see—that those who are never required to work at home are the very guests who are most willing to join in any of the light household labor done by the ladies of the house where they are staying.

"Anything that is not in the least like her own home and ways of living will be a blessed relief and change to Mrs. Simmons. Your clean, quiet house, your deli-

cate cookery, your cheerful morning tasks, if you will let her follow you about, and sit and talk with you while you are at your work, will all seem a pleasant contrast to her own life. Of course, if it came to the case of offering to change lots in life, she would not do it; but very likely she *thinks* she would, and sighs over and pities herself, and thinks sentimentally how fortunate you are, how snugly and securely you live, and wishes she were as untrammelled and independent as you. And she is more than half right; for, with her helpless habits, her utter ignorance of the simplest facts concerning the reciprocal relations of milk, eggs, butter, saleratus, soda and yeast, she is completely the victim and slave of the person she pretends to rule."

We commend this entire series of papers to all house-keepers, and to all who anticipate assuming the burdens and pleasures of that position. They are being published in the *Atlantic Monthly*.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

Apple Meringue.—This is a simple dish, but very attractive looking and very pleasant to eat. Take some stewed apple which has been carefully prepared and is entirely free from lumps. It must be strained through a cullender, if necessary. Put it into a pudding-dish; beat up the whites of two eggs, with not quite as much sugar as you use for frosting; heap this upon the apple; let it stand in a cool oven long enough to become slightly brown. The apple may be flavored with lemon, wine or cinnamon. Any other fruit may be used. This kind of frosting is often put on lemon and other pies which have no upper crust.

A lady has given us some raspberry vinegar made from the receipt published in the July number of the *Farmer* for 1862, and it is so very nice that we republish it, hoping that others will enjoy this refreshing beverage as we have done:

Raspberry Vinegar.—Take three or four quarts of raspberries, put them in a stone crock and cover them with vinegar. Let them stand twenty-four hours. Then strain this juice through a jelly-bag and pour it on to fresh berries, letting this stand another day. Repeat this process until you have the quantity you desire. Add to each pint of juice one pound of sugar. Put it into a preserving kettle and allow it to heat sufficiently to melt the sugar. When it is cold, put it into bottles. It will keep for several years.

To Clean Silk.—A quarter of a pound of soft soap, one ounce of honey, one pint of gin. Put on with a flannel, or nail-brush, and afterwards brush with cold water, then dip in cold water five or six times and hang out to drain, then iron (*not* on the wrong side) with a hot iron.

To Extract Grease from Silk.—Wet the part with eau de cologne, and gently rub the silk upon itself between the hands. When dry the grease will disappear. This will also remove recent paint and the grease from a wax-candle.

Turtle Bean Soup.—Please publish or give me your receipt for making soup from those turtle soup-beans you were so kind as to give me. I raised quite a lot, but my folks do not know how to use them and pronounced them "no go," as I am confident erroneously; but we need instruction.—J. Dorr, *Scottsville, N. Y.*

We give in answer to the above a receipt which we published two years since; but we think that the soup is much better when the beans are added to a plain meat soup made of beef and veal. The wine, the force meat-balls and the lemon are pleasant additions, but not at all necessary. It sometimes happens that the beans do not become soft in cooking. If they continue quite hard and will not pass through the cullender, they can be put into boiling water and cooked for fifteen or twenty minutes and again strained. It is very important that they should be soaked at least twelve hours. There is no soup as good, which is as easily made as this. Many make it quite thick, like common bean or pea soup; but we prefer it thin and clear. A little tomato catsup gives a very good flavor, but plenty of salt and pepper must be used to make it taste as it should. We asked a lady who has made it very frequently, and always succeeds with it, what her receipt was. She gave the same directions that we have given for preparing the beans and making the stock, and added: "Put in a little thyme, a little celery, a good deal of pepper and salt—anything you like, only make it taste good." The following is the receipt above referred to:

Turtle Bean Soup without Meat.—Take any quantity that you wish of black beans; boil them in water until thoroughly cooked; then dip the beans out of the pot and press them through a cullender; return the flour of the beans thus pressed into the pot in which they were boiled; tie up in a cloth some thyme; put it into the soup and let it boil; add a little butter, and season with salt, pepper, parsley and sweet marjoram; make some force meat-balls; add them to the soup, together with a sliced lemon, and wine to your taste a short time before serving. This will approach so near in flavor to the real turtle soup that few would be able to distinguish the difference. The beans must be soaked over night.

Strawberries.—If you are content to have finely flavored preserves, but the color poor, you can put up strawberries with scarcely any sugar, and in the same way that you do peaches. But it is very rarely that any one succeeds in preserving both color and flavor, except by preserving them with at least three-quarters of a pound of sugar to a pound of the fruit, and then they must be put into the cans while hot and hermetically sealed. At the present price of sugar, almost every one will give up the old-fashioned rich but often flavorless preserves, and use only canned fruit; and strawberries, if carefully attended to, will keep very well put up in this way.

Cyanide of Potassium.—This article will be found infallible in removing stains from any kind of white cloth. A distinguished chemist in the city of New York says that he has never found any stains that can not be removed by its application. Cover a small quantity of it with tepid water, and apply it to the stain immediately. It will even remove indelible ink.

Breakfast Rolls.—Two pounds of flour, one-quarter of a pound of butter, three potatoes, one gill of yeast, and a little salt. Let them rise all night.

Miscellaneous.

BOTH SIDES.

A man in his carriage was riding along,
A gaily-dressed wife by his side;
In satins and laces she looked like a queen,
And he like a king in his pride.

A wood-sawyer stood on the street as they passed,
The carriage and couple he eyed,
And said, as he worked with his saw on a log,
"I wish I was rich and could ride."

The man in his carriage remarked to his wife,
"One thing I would give if I could—
I would give all my wealth for the strength and the health
Of the man who is sawing the wood."

AN OFFICIAL DISPATCH.—A Germantown man lately posted the following notice in his house:

HEADQUARTERS, House of ——.

General Order No. 1.—JULIA: Until the price falls, no more butter will be used in our family. JAMES.

He had hardly reached his counting-house, when a special messenger handed him this:

JAMES: Until butter is reinstated, no more tobacco will be used in this house. JULIA, Chief-of-Staff.

Chief-of-Staff won.

PUNCTUATION, or the putting the stops in the right places, can not be too sedulously studied. We lately read, in a country paper, the following startling account of Lord Palmerston's appearance in the House of Commons: "Lord Palmerston then entered on his head, a white hat upon his feet, large but well-polished boots upon his brow, a dark cloud in his hand, his faithful walking-stick in his eye, a menacing glare saying nothing. He sat down."—*Punch.*

THE attention of a little girl having been called to a rose-bush, on whose topmost stem the oldest rose was fading, whilst below and around it three beautiful crimson buds were just unfolding their charms, she at once and artlessly exclaimed: "See, Willie, these little buds have just awakened in time to kiss their mother before she dies!"

SOME years ago a person requested permission of the Bishop of Salisbury to fly from the top of the spire of that cathedral. The good Bishop, with an anxious concern for the man's spiritual as well as his temporal safety, told him that he was very welcome to fly to the church, but he would encourage no man to *fly from it!*"

HANDEL, the great composer, was also a great glutton. He would often order dinner for three; he would then ring for the waiter, and would ask him, "Is de dinneer retty?" "Yes, sir, as soon as the company comes." "Den bring me dinneer," he would say; "I am te company."

A SHREWD little fellow, who had just begun to read Latin, astonished his master by the following translations: *Vir*, a man; *gin*, a trap—Virgin, a man-trap."

IN a discussion with a temperance lecturer, a toper asked: "If water rots your boots, what effect must it have upon the coat of your stomach?"

AN INGENIOUS CAT.—In Le Nord it is related that a cook was recently greatly perplexed by the disappearance day after day of a cutlet or steak from the kitchen table when she was preparing the dinner. In each day's tale there was a deficiency of one. At last it occurred to her that as the bell was rung every day while she was preparing dinner, and when she went to the door there was nobody, there must be some connection between the two occurrences. Once this idea had entered her mind, she determined to satisfy herself upon the point. The bell rang at the usual time, but instead of answering it she hid herself in a cupboard. She had hardly done so before a cat rushed into the kitchen, sprung on the table, seized a cutlet in his mouth, and vanished. Her mistress was made acquainted with this felonious act on the part of the animal, and it was determined to set a watch to see how it had been trained to this mode of robbery. The discovery was soon made. At the usual time, when the cook had her dishes arranged for the stove, the concealed watcher saw the cat creep stealthily towards the bell-wire, hook her claws in it, give it a furious pull, and then rush away kitchenward.

A COXCOMB, talking of the transmigration of souls, said: "In the time of Moses, I have no doubt I was a golden calf." "Very likely," replied a lady; "time has robbed you of nothing but the gilding."

AN author of a love story, in describing his heroine, says: "Innocence dwells in the dark clusters of her hair." An unkind reviewer suggests that a fine-tooth comb would bring it out.

SOMEBODY thinks that if nature had intended man to be a drunkard, he would have been constructed like a churn, so that the more he drank the more firmly he would stand.

"SALLY," said a fellow to a girl who had red hair, "keep away from me or you will set me on fire." "No danger of that," replied Sally, "you are too green to burn."

AN unromantic doctor says that tight lacing is a public benefit, inasmuch as it kills off all the foolish girls, and leaves the wise ones to grow to be women.

IF your lips would keep from slips, five things observe with care—of whom you speak, to whom you speak, and how, and when, and where.

NEVER, perhaps, are children dearer to their parents than when, as at present, the price of food and clothing is so excessive.

IF you want to kiss a pretty girl, why, kiss her—if you can. If a pretty girl wants to kiss you, why, let her—like a man.

AN Irish gentleman, while playing cards, finding the pool deficient, exclaimed: "Here's a shilling short—who put it in?"

WHY are poultry the most profitable things a farmer can keep? Because for every grain they give a peck.

Half Volume of the Genesee Farmer.

With the present number commences a half volume of the *Genesee Farmer*. Our friends have already sent us many more new subscribers than we expected We trust they will continue their efforts, and we should be pleased if every reader of the *Farmer* would ask his neighbors, who do not take it, to try it for half a year. The cost is merely nominal. As we said last month, our freinds could send us twenty thousand additional subscribers if they would only take the matter in hand at this time. Our terms are:

Single subscribers,	$0 40
Five subscribers,	1 50
Eight subscribers,	2 00

And larger clubs at the same rate, (25 cents each.)

For sixteen subscribers at twenty-five cents each, we will send, prepaid by return mail, a copy of Miner's *Domestic Poultry Book*.

For twenty-four subscribers we will send, prepaid by return mail, a copy of Emerson & Flint's excellent work, *The Manual of Agriculture*.

Notes on the Weather from April 15th to June 16th, 1864.

As to temperature, the last half of April was 2.5° below the general average, viz., 46.7°, or being 44.2°. The hottest noon was on the 22d, viz., 66°; and the coldest was on the morning of the 28th, being 30°. The average of the month was 43.2°, and the general average was 43.7°. This gives the same mean temperature as for April, 1863.

The water fallen was 3.23 cubic inches—above the average a little. On the 23d was our first thunder shower, at 10½ P. M., with some hail, passing chiefly north of us. We had frost on the 16th; on the 28th mud and shallow water frozen, and again on the 30th. Peaches and cherries in full blossom at Washington, D. C., on the 24th. April was not a pleasant month.

May began rainy, and went on so, raining thirteen days of fifteen, and giving 4.76 inches of water this half, of which 2.73 inches fell chiefly on the 14th. This was a great rain over Western New York, and has done much damage, especially in the two northwestern counties where high wind attended the rain. The quantity of water was far above the average. This storm did not extend east of the Allegany range.

The mean temperature of this half is 54°, and the general average is 53.6°; warmer than this half of May last year by nearly 3°. The hottest noon was 81° on the 6th, and this was the hottest day also, 68°. The surface wind has been much from the northeast round to the southeast.

Farming operations have been delayed by the rain, as the earth is soaking full of water. We had snow on the morning of the 3d and the night before, an inch or more, which disappeared before noon. Grass grows rapidly; but the farmers say they are far behind in their spring work. The foliage of trees has put out rapidly in this half month.

The last half of May was pleasant and vegetation rapid. While the first half was near the average temperature of the season, the last half was five degrees higher.

General average heat of the last half,	57.96°
Mean of the last half,	62.54°
Mean of the month,	58.98°
General average of the month,	56.80°

The mean of the barometer is low—29.32 inches—and has been low all this year.

The rain of the first half of May was 6.54 inches, and in the last half 1.78 inch.

The early peach blossoms were killed by the cold of May 11th; but in the last half the other fruits blossomed abundantly, though most of the cherry and pear blossoms do not promise much.

The rapid growth of grass, wheat, rye, &c., was checked by the cold of the 28th and 29th, greatly to their benefit, as they were made firmer and stronger.

June.—Beautiful June! Yes, rather cool, people say, though the first ten days were warmer than the same of last year.

General average of the first half,	63.14°
General mean heat,	59.60°
Hottest noon, on 5th and 15th, less than last June,	82.60°
Coldest morning,	45.00°

Some white or hoar-frost on the 10th and 11th.

A Canadian's Opinion of the Genesee Farmer.

Mr. William Kievell, of Kincardine, C. W., in sending us the names of several new subscribers, avails himself of the occasion to say that the *Genesee Farmer* is a most welcome monthly visitor in his family, and adds: "My wife never took any interest in the garden until after I became a subscriber to the *Genesee Farmer*. This spring she planted all the seeds, and has kept the garden free from weeds, and all this cost me only fifty cents (American money,) besides the great pleasure its persual affords me. I believe if the *Genesee Farmer* found its way into every farm-house in the land, there is not one farmer out of fifty that at the end of the year who could not say that he had received a thousand fold for his money. I shall exert myself to get every one that has even a garden to become a subscriber to the *Genesee Farmer*."

These remarks are very flattering, but the number of subscribers our friend has already sent us proves his sincerity, and we tender him our best thanks, both for his good opinion of the *Farmer* and his efforts to increase its circulation and influence. The *Genesee Farmer* has always enjoyed a very extensive circulation among the best farmers of Canada West, and we trust such will always be the case. At the present time an English shilling nearly pays for one year's subscription to the *Genesee Farmer!* If the present price of paper and materials continues, we shall be compelled next year to advance our rates. We send the paper for the coming half volume at a price that barely pays the cost of paper and printing. We do so in hopes that our

friends will make a special effort to increase our circulation. If all our subscribers would for the coming two weeks take the matter in hand, they could send us ten thousand new subscribers to the present half volume of the *Farmer*.

The Markets.

The *Genesee Farmer* has always endeavored to give a full and accurate report of the markets. At the present time, however, it is useless to give quotations, as prices vary from day to day. In regard to the future, it may be well to remark that notwithstanding the high prices which at present prevail, there is little probability of any immediate reduction. The war increases the demand for all agricultural products, while at the same time it greatly lessens the supply. Our agricultural productions are so much greater than the home consumption that for the first two years of the war prices were not materially advanced. The Southern demand for corn, and other agricultural products, was cut off, and for the first year after the war commenced prices, especially at the West, were much below an average. The drouth and early frosts of last year, however, proved disastrous to the corn crop at the West, and the price of this great staple in some portions of the West is now *ten times* higher than it was three years ago!

The crop prospects throughout the great grain producing regions of the West are not flattering. The drouth in parts of Michigan, Wisconsin and Minnesota has been very severe, and the crops are suffering materially. Labor, too, is very scarce, and it is greatly to be feared that, while the demand is greater than ever, production will be far below an average.

Were there no other reasons, therefore, than the above, we should be warranted in anticipating high prices. But the premium on gold is now so great that this in itself would greatly enhance prices. We are aware that this is denied. But it seems so clear that those who take time to reflect cannot for a moment doubt it. If a bushel of American wheat will bring in England $1.25 in gold, and this gold will buy $2.50 of legal tender notes, it is evident that wheat will sell here for $2.50, less the expense of sending it to England. The same is true of butter and cheese, and of everything that we export. Wheat never was lower in Europe than at the present time. Were it as high there as in 1861 it would be worth here in our currency over $3.00 per bushel. With gold at 200, it is vain, under any circumstances, to expect low prices, but how much more so when in addition to this premium on gold we take into consideration the increased demand and diminished supply caused by the war.

— Gold is now (June 29) quoted at 240 to 250.

The State Fair.

The Premium List for the Twenty-Fourth Fair of the New York State Agricultural Society, to be held in this city on Sept. 20–23, can be had on application at the office of the *Genesee Farmer*.

Our List of Agricultural Implement Makers.

We spent much time and labor in preparing the list of some of our principal agricultural implement manufacturers in the United States and Canada, published in the June number of the *Genesee Farmer*. We think it will prove useful to our readers.

The name of Paschall Morris, of Philadelphia, Pa., was in some unaccountable manner omitted. Mr. Morris has been for many years one of the most prominent dealers and manufacturers of agricultural implements and machinery. We very much regret the omission of his name from the list.

The following errors have also been pointed out to us:

Frederick Gilbert, *Morris*town, Pa., should be *Norris*town.

H. K. Parson, of Harrisburgh, Pa., should be H. K. Parsons.

Blaker, *M*illard & Co., Newtown, Bucks county, Pa., should be Blaker, *W*illard & Co.

If any other errors have occurred, we shall be happy to correct them.

Western New York Fruit Growers' Society.

The Editor of the *Germantown Telegraph* says he "always reads the reports of this Society with interest, as they usually embrace the experience of some of the very best fruit-growers in the country." This is true. We do not to-day know of any work on fruit culture that contains so much really valuable, practical information as is to be found in the reports of the discussions at the various meetings of the Western New York Fruit Growers' Society as published in the back volumes of the *Genesee Farmer*. Whenever we wish for any information in regard to a new fruit, or some special branch of culture, we turn to these reports, and rarely fail to find just the information we desire. We have published the reports in the *Farmer* ever since the organization of the Society.

Harvest Beer.

A correspondent asks us to repeat the recipe for hop beer given in the last volume of the *Genesee Farmer*. We tasted this beer in Connecticut last summer, and thought it better than anything of the kind we ever before drank in this country. We give the recipe a little more in detail. For fifteen gallons of beer, the ingredients are 12 or 14 ounces of hops, 6 quarts of molasses, and 10 eggs. Put the hops in a bag and boil in three pails of water. Pour the water into a cask while hot. Then boil the hops again in two pails of more water. When this is put into the cask add the molasses. Then fill up the fifteen gallon cask with cold water. When so cool as not to scald add the ten eggs, without beating. Stop up the cask close so that there is no vent. In warm weather it is usually ready to drink in three days. In cool weather the cask should be put in a warm place. When ready for use the beer will foam and be full of life, but as it has no yeast it will never sour, at least not for several months. The cask should be a strong one. When properly made this beer will be found a healthy and pleasant beverage in warm weather.

"The Illustrated Horse Management."

Such is the title of a book just published by J. B. Lippincott & Co. It is written by Edward Mayhew, M. R. C. V. S., and the copyright is held by the American publishers. It is most beautifully printed on tinted paper, and the engravings are exquisitely finished and spirited. All who have seen the *Illustrated Horse Doctor*, by the same author, will remember how pleasant the style of the writer is. In this work there is more scope for enthusiasm, and his real love for the horse gives a charm to all he says. The illustrations of horses suffering in various ways are sometimes rather exaggerated, but the exaggeration seems to arise from a sense of the importance of the subject. Mr. Mayhew insists upon common sense and kindness as the great guides in horse management. His ideas about a proper stable are quite beyond the means of ordinary horse-owners, but he says he does not expect to see his designs at all generally carried out. He thinks stalls are an abomination, and advocates loose boxes, eighteen feet square for each horse.

He has one or two ideas which could be carried out in any stable. He says that horses love society, and should have the walls of their stalls low, with only wires above, so that the animals can "rub noses" with their neighbors, and that the feeding troughs should also be low.

Any one who takes the least interest in the horse, and even either rides or drives one, will read this book with interest and profit.

The chapters on "Grooms" and "Horse Dealers" are plain-spoken, and as they are written by one who ought to understand the peculiarities of both classes we have no doubt truthful.

Inquiries and Answers.

My cherries have fallen from the trees this season more than ever before. What is the cause, and is there any remedy?—R., *Caledonia, N. Y.*

The cherries have been stung by the curculio. There is no remedy we are acquainted with that will be of much use this season. The only thing to be done is to gather up and burn all the fallen cherries. The larvæ of the insect are in the fallen fruit. If you allow them to remain on the ground they will breed a host of curculios to sting your crop next season. Let every fallen cherry be swept up and burned at once. Do the same thing with all stung fruit—apples, pears, plums, &c.—and in a few years you will be less troubled with insects.

I want to buy a good Railroad Horse Power Threshing Machine. I find in looking over the back numbers of the *Farmer* that there are several firms in your State who manufacture them. I should esteem it a favor if you would inform me, privately, where I should be likely to get a good one. I would send the money at once, but I do not wish to receive the same treatment your Hamilton correspondent met with in sending for the Chester White Pigs. —— ——, *Ingersoll, C. W.*

Our esteemed correspondent must excuse us for publishing the above. We have little time to answer private letters. We are sorry that the conduct of one of the advertisers in the *Genesee Farmer* should lead any of our readers to doubt the honor and respectability of others. We feel sure that you may send the money to any of the manufacturers of horse powers who advertise in the *Genesee Farmer* with the certainty of receiving honorable treatment. They are all men of integrity and of the highest respectability.

One dollar in Canada money is now equal to two in our currency, and our Canadian friends can purchase agricultural implements, nursery trees and anything else of this kind they may want at very low rates for Canadian money. Prices have advanced considerably, but the increase in price is by no means equal to the advance in gold.

Some of our Canadian friends in forwarding subscriptions forget to send the extra twelve cetns to prepay the American postage on the *Farmer*.

Special Notices.

Bradley's XL Superphosphate of Lime.

We present the following additional testimonials of the value of Bradley's XL Superphosphate of Lime:

Keene, N. H., December 12, 1863.

Wm. L. Bradley, Esq.—*Dear Sir:* It is with great pleasure that I write you concerning the XL Superphosphate of Lime, which I had of you last spring. It was fully equal, if not superior, to any I have ever used, and I have no hesitation in recommending it as an article worthy the confidence of the public. It was perfectly free from all foreign substances, thereby rendering it fit to use in a machine; and there seemed to be a greater proportion of ammonia in it than I have ever found before, as shown by the odor and the rapidity of growth early in the season of all vegetables planted upon it.

I consider a good article of Superphosphate of Lime to be the one thing needful to bring our old plain lands into good condition and am satisfied that no one can afford to raise potatoes to *eat* without it. I have used it from various manufactories for five years, and during that time have never had rotten potatoes, but, on the contrary, they are always sound, mealy and dry, and yield well. I would say that my land is a sandy loam, and I have planted some ten or twelve varieties of potatoes, with the same result in each case. Yours, truly, THOS. E. HATCH.

Hardwick, Mass., February 10, 1864.

To Wm. L. Bradley—*Dear Sir:* I purchased some of your XL Superphosphate last season and tried it for growing Indian Corn. I top-dressed an acre with barn-yard manure, and dunged one-half of it with a good shovelful of hog manure in a hill; and on the other half I put a tablespoonful of Superphosphate in the hill. The corn on the latter half, where I applied the XL, was considerably better than where I used the hog manure, and, besides, it was ten or fifteen days earlier.

FRANKLIN NEWLAND.

Hardwick, Mass., February 11, 1864.

To Wm. L. Bradley—*Dear Sir:* I tried your XL Superphosphate last season in growing corn. On an acre, one-half of which raised oats and the other half potatoes the previous season, I spread twenty-seven cart-loads of green manure and plowed it in well and furrowed about three and a half feet apart both ways. I used hog manure, plaster and Superphosphate in the hill—of the latter a tablespoonful in each hill. Between the hog manure and the XL there was but little difference. Where the plaster was used there was a very marked falling off, though plaster works well on my farm.

I believe a fair trial will convince any unprejudiced mind of the great value of your XL Superphosphate of Lime. I have used Superphosphate for four consecutive years, and I am well

satisfied that it pays. I intend to use it the coming season, if I can get it, and have advised others to do so.

Among the numerous substantial and enterprising farmers of this town who used your XL last season, all speak very favorably of it, and say it has done well for them as it did for me.

Truly yours, JOHN B. WETHERELL.

For further particulars, address W. L. BRADLEY, No. 24 Broad street, Boston, Mass.

Flax Cotton--Machinery to Test the Experiment of Manufacturing Flax Cotton.--The appropriation of $2,000 to test the practicability of manufacturing flax cotton, to be expended under the direction of the New York State Agricultural Society, is still open to competition to all who are investigating the subject. The Society desire to call the attention of the public to this subject. The committee appointed to examine applications consists of Samuel Campbell, New York Mills, chairman, John Stanton Gould, Hudson, Alfred Wild and B. P. Johnson, Albany. The committee will, on application, examine any machinery that may be presented, and the processes adopted. Notice can be given to the Secretary of the Society, or to any member of the committee, who will furnish the necessary information.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or $2.50 per square, or $25 per column, each insertion, payable in advance.

S. M. PETTENGILL & CO.,

No. 37 Park Row, New York, and 6 State street, Boston, are our Agents for the GENESEE FARMER in those cities, and are authorized to take advertisements and subscriptions for us at our lowest rates.

The London Club Coffee.

Prepared from the Best Old Java.

TRIED and recommended by the Editor of THE INDEPENDENT.
" " " " " THE HOME JOURNAL.
" " " " " THE EVANGELIST.
" " " " " THE METHODIST.

Commended also by THE CHRISTIAN ADVOCATE, by THE BAPTIST EXAMINER, by most of the leading Editors, and by the most respectable PHYSICIANS. Nearly all prominent Journals and Professional men are using and commending

THE LONDON CLUB COFFEE.

"We have ourselves used this Coffee," says the Editor of THE INDEPENDENT, "and have no hesitation in commending it as an agreeable, healthful, and every way reliable article."

This Standard Coffee is prepared FROM THE BEST OLD JAVA, and has no connection with any of the adulterations drifting about the market. It is easily distinguished from all other Coffees by its remarkable fragrance, strength and flavor.

[From Dr. Van Kleeck.]

GENTLEMEN: I have been using your Coffee in my family, and consider it SUPERIOR to any I have met with. I find it to contain only the healthiest ingredients, together with a very unusual proportion of PURE JAVA COFFEE. Having recommended it extensively in my practice, I have heard but one opinion in its favor as a nutritious and healthy beverage, and well adapted to nervous temperaments. JAS. B. VAN KLEECK, M. D.,
February 15, 1864. No. 160 Franklin-st. N. Y.

This Coffee is put up for the trade in cases of 36 lb, 60 lb, and 100 lb.

The price of the Club Coffee to the consumer ranges from 24 to 35 cents.

☞ To the Trade a Liberal Discount. ☜
Terms—Net Cash.
CHAS. H. LYON, Sole Agent,
jy1t No. 48 Courtlandt street, N. Y.

CIDER PRESS SCREWS.

FIVE FEET LONG, four inches diameter. These powerful Screws bring out a third more juice than portable presses. Send for a Circular. Made by L. M. ARNOLD,
jy2t* Poughkeepsie, (N. Y.) Foundry.

$2 **MADE FROM 20 CENTS!**—Call and examine, or ten samples sent free by mail for 20 cents. Retails for $2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-1y

BAUGH'S
RAW BONE
SUPERPHOSPHATE OF LIME.

BAUGH & SONS,
SOLE MANUFACTURERS,
Store No. 20 South Delaware Avenue,
PHILADELPHIA.

THIS article has for many years enjoyed a high reputation as a manure of great efficiency and of unequaled permanence, and we scarcely deem it important, in our semi-annual advertisement, to say more than merely call the attention of buyers to it. But we will also state to farmers and dealers in fertilizers that it has been our constant aim to render our **Raw Bone Phosphate** more and more worthy of the full confidence of farmers, by the use of every facility at command, and the aid of scientific skill, in essentially improving its qualities, and we have never allowed this purpose to be interfered with by the great and steady advance in the cost of all matters pertaining to our business, throughout the past two years.

The price of the Phosphate, packed in either bags or barrels, is

$60 per 2,000 lbs. (3 cents a pound), Cash.

No extra charge for bags or barrels.

The RAW BONE PHOSPHATE may be had of any regular dealer in fertilizers (to whom we advise farmers to apply), or of the manufacturers and proprietors.

BAUGH & SONS,
No. 20. South Delaware Avenue,
jy8t **PHILADELPHIA.**

ENGLISH PHEASANTS, &c.

BY a late arrival of the steamship Bremen we are put in possession of the following

FANCY STOCK FOR SALE.

3 Pair of ENGLISH PHEASANTS,.....$25.00 per pair.
3 Pair of BANNACLE GEESE,..... 25.00 do.

Two Pair GERMAN RED SQUIRRELS very playful and tameable. Price $12 per pair. The above prices include caging and delivery at Express office in New York.

Also now on hand, two pair JAVA PEACOCKS.

One copy, new edition, AMERICAN POULTERER'S COMPANION sent by mail on receipt of $2, retail price. Address
jy1t C. N. BEMENT, P. O. Box 505, Poughkeepsie, N. Y.

TO CLEAR THE HOUSE OF FLIES,
USE DUTCHER'S CELEBRATED
LIGHTNING FLY-KILLER,

a neat, cheap article, easy to use. Every sheet will kill a quart.

jy **SOLD EVERYWHERE.** 8:

CAYUGA CHIEF
COMBINED MOWER & REAPER,
AND
CAYUGA CHIEF, JR., MOWER.

Manufactured at Auburn, N Y., by
je3t **BURTIS & BEARDSLEY.**

SWEET POTATO PLANTS,

[Price $2.25 per thousand,]

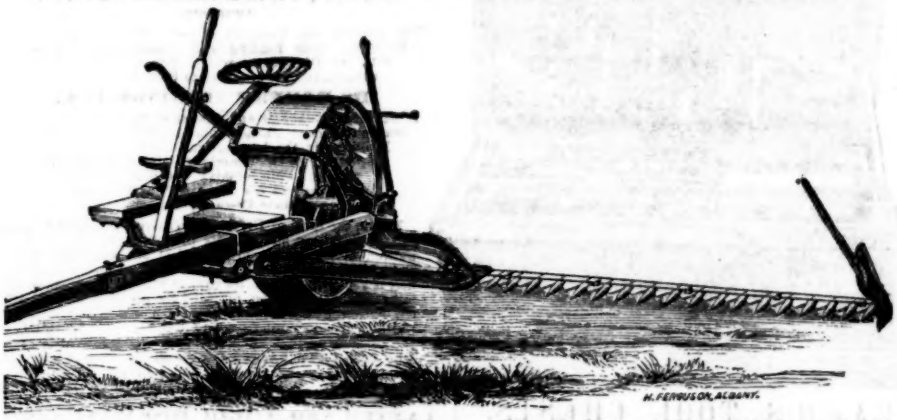
OF THE LEBANON YELLOW OR NANSEMOND variety. These plants will be packed in boxes of five and ten thousand each, so as to travel with safety ten days. Grown by
my6t F. A. SCHWILL & BRO., Cincinnati, Ohio.

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at $1 per 100 or $5 per 1000. Warranted true SALIX ALBA. mh D. S. HEFFRON, Utica, N. Y.

$75 **A MONTH**—Agents wanted to sell Sewing Machines. We will give a commission on all machines sold, or employ agents who will work for the above wages and all expenses paid. Address, D. B. HERRINTON & CO.,
my4t* Detroit, Mich.

CURTIS' PRAIRIE MOWER!



Patented by George S. Curtis, of Chicago, Ill., February 23d, 1858, and May 31st, 1864.

MANUFACTURED BY

E. A. & G. R. MENEELY,

West Troy, N. Y.

THE undersigned would call the attention of the Farmers of the Middle and Eastern States to these Machines, now so deservedly popular at the West, of which they are manufacturing a limited number, under the immediate supervision of the inventor. They can confidently commend them to public favor, inasmuch as the concurrent testimony of those who have used them hitherto, is, that in the following important particulars they stand unrivalled, viz:

1st. Simplicity of construction.
2d. Ease of draft.
3d. Capacity of cutting power, allowing six feet cut if desired.
4th. Non-liability to get out of order.
5th. Adaptation to rough and uneven land.

Prices for the season of 1864 are, for

Five and a half feet cut.....$130
Five feet cut..... 120

Every Machine Warranted to Perform as Represented.

☞ For further particulars, and references, apply to

E. A. & G. R. MENEELY,
West Troy Bell Foundry, West Troy, N. Y.

jy4t

Schenectady Agricultural Works.

G. WESTINGHOUSE & CO.

PROPRIETORS AND MANUFACTURERS OF

Improved Lever and Endless Chain Horse Powers,
Combined Threshers and Cleaners,
Threshers and Separators,
Clover Machines,
Circulars and Cross-cut Wood Sawing Machines,
Dog Powers for Churning, &c., &c.

Send for a Circular containing description and prices of the above-named machines.

Particular attention is invited to our new

Thresher and Cleaner

with RIDDLE SEPARATOR. This machine was introduced last season with great success, and we believe is not equaled by any in use.

We also would invite notice to our

Improved Wood Sawing Machines,

both Circular and Cross-cut, which are complete in every respect.

Address all communications to

G. WESTINGHOUSE & CO.,

ap SCHENECTADY, N. Y.

HOP POLES.—20,000 White Cedar, deliverable at Albany. je2t* A. EDWARDS, Shrewsbury, N. J.

NEW ILLUSTRATED CATALOGUE.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

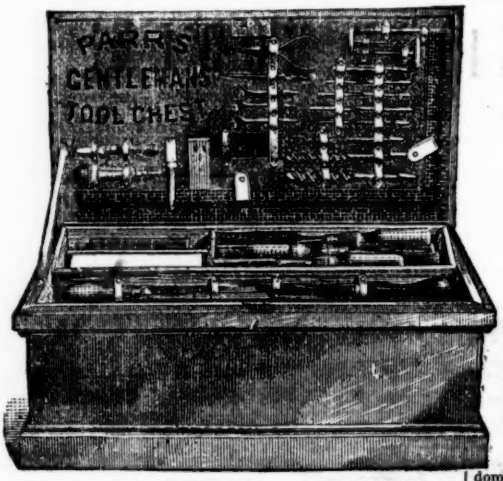
Address C. W. SEELYE,
aptf Rochester Central Nurseries, Rochester, N. Y.

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from 70 to 80 per cent. of phosphate of lime, to which has been added by a chemical process a large per centage of actual ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Pamphlets with copies of analyses by Drs. Jackson, Massachusetts State Assayer, and Liebig, of Baltimore, and testimonials from scientific agriculturists showing its value, can be obtained from J. O. BAKER & CO., Selling Agents,
mh6t 87 Wall street, New York.

PATENTS.—Patents for inventions secured on favorable terms. No charge for consultations and opinions. No charge for rejected cases unless successful. J. FRASER & CO., Western N. Y. Patent Agency, Buffalo and Rochester, New York. je2t



PARR'S TOOL CHESTS.

Fitted with complete setts of tools, sharpened and set ready for use, and packed in cases for shipping. Prices from **$2** up, and containing from

Eight to One Hundred and Twenty-Eight

different articles, according to size, and adapted to the use of

Boys, Youths, Amateurs and Farmers.

PARR'S HORTICULTURAL CHESTS,

CONTAINING

COMPLETE SETTS OF GARDEN TOOLS.

Every one having a garden will find these Chests very useful.

TURNING LATHS FOR AMATEURS.

Also, smaller sizes of

FOOT LATHS FOR BOYS,

With Tools to correspond.

To be had of all respectable Hardware Dealers, or of the Manufacturer.

☞ Send for ILLUSTRATED CIRCULAR to the Manufacturer,

jy1t **GEORGE PARR, Buffalo, N. Y.**

JENNING'S GREAT BOOKS

FOR FARMERS AND STOCK-RAISERS.

SHEEP, SWINE AND POULTRY:

EMBRACING

The History and Varieties of each; the Best Modes of Breeding; their Feeding and Management; together with the Diseases to which they are respectively subject, and the appropriate Remedies for each.

By ROBERT JENNINGS, V. S.,

Professor of Pathology and Operative Surgery in the Veterinary College of Philadelphia; Professor of Veterinary Medicine in the late Agricultural College of Ohio; Secretary of the American Veterinary Association of Philadelphia; Author of "The Horse and his Diseases," "Cattle and their Diseases," etc., etc.

This is the third of Dr. JENNING'S Great Series for farmers and stock-raisers, and like its predecessors, will be found written in a pre-eminently practical and suggestive style, and while issued in a cheap and convenient form for popular use, it yet grasps the entire subject with all its necessary details. No one who has obtained the previous volumes will fail to purchase this, and taken as a whole, this series of books will stand out for years to come, as beacon lights for the guidance of that intelligent and largely increasing class, who wish to avail themselves of all the modern improvements in the rearing, breeding and general treatment of our domestic animals. With numerous illustrations. 12mo., cloth. Price, $1.50.

CATTLE AND THEIR DISEASES—Embracing their History and Breeds, Crossing and Breeding, and Feeding and management; with the Diseases to which they are subject, and the Remedies best adapted to their cure. To which are added a List of the Medicines used in treating Cattle, and the Doses of the various remedies requisite. By ROBERT JENNINGS, V. S. With numerous illustrations. 12mo., cloth. Price $1.50.

THE HORSE AND HIS DISEASES—Embracing his History and Varieties, Breeding, and Management and Vices; with the Diseases to which he is subject, and the Remedies best adapted to their Cure. By ROBERT JENNINGS, V. S. To which are added Rarey's Method of Taming Horses, and the Law of Warranty, as applicable to the purchase and sale of the animal. Illustrated by nearly 100 engravings. 12mo., cloth. Price $1.50.

Agents and canvassers will find these very desirable works. Liberal terms made with the trade.

Either one or all of the above books will be sent to any address, post paid, on receipt of price, $1.50 each. Send your orders to

JOHN E. POTTER, Publisher,

jy3t **617** SANSOM ST., PHILADELPHIA.

Mayhew's Horse Management.

JUST PUBLISHED,

The Illustrated Horse Management, containing descriptive remarks upon Anatomy, Medicine, Shoeing, Teeth, Food, Vices, Stables; likewise a plain account of the situation, nature, and value of the various points; together with Comments on Grooms, Dealers, Breeders, Breakers, and Trainers; also on Carriages and Harness. Embellished with more than 400 engravings from original designs made expressly for this work. By EWD. MAYHEW, M. R. C. V. S., author of "The Illustrated Horse Doctor" and other works. 1 vol. 8vo.

MAYHEW'S HORSE DOCTOR.

NEW EDITION.

The Illustrated Horse Doctor; with more than 400 pictorial representations of the various diseases to which the equine race is subjected; together with the latest mode of treatment, and all the requisite prescriptions written in plain English. By EDW. MAYHEW, M. R. C. V. S. 1 vol. 8vo.

[From the London Globe.]

Every gentleman who possesses or cares for Horses would do well to keep this book in his house. Mr. Mayhew's treatment of the worst diseases to which Horses are liable is very clearly laid down, and the method of keeping Horses well and to a prolonged old age is that of nature, of common sense.

☞ For sale by all Booksellers.

J. B. LIPPINCOTT & CO.,

ju2t Publishers, Philadelphia.

SHORTHORNS FOR SALE.

THE BULL HOTSPUR 4030 A. H. B. by Duke of Gloster (11,382) dam Daphne (imported) by Harrold (10,299), rich roan, calved May 15, 1860. Also, three YEARLING BULLS and five BULL CALVES, mostly by Hotspur, and a few HEIFERS.

☞ Catalogues sent on application.

apt **T. L. HARISON, Morley, St. Lawrence co., N. Y.**

REMINGTONS & CO.,

Ilion, Herkimer County, New York,

MANUFACTURERS OF

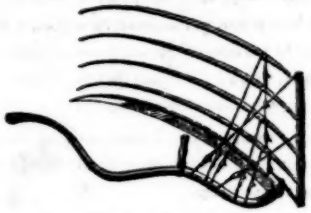
STEEL PLOWS,

STEEL CULTIVATOR TEETH,

STEEL SHOVEL PLOW BLADES,

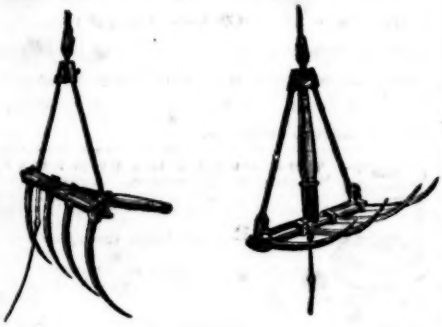
FLANDER'S

Patent Adjustable Grain Cradle,



MYER'S PATENT

HORSE HAY ELEVATOR,



PERRY'S

PATENT HORSE POWER,

AND

Agricultural Implements Generally.

The Cradle Elevator and Horse Plow

Have been lately added to our list, but have been selected from the great number and style of Implements now before the public as the best in use, and we doubt not a trial will fully justify our choice.

We have changed the iron head of the Elevator for wood, which has proved better and lighter than iron. The Horse Power has proved itself far superior to any in use. Address

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TO FARMERS!

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THE BEST MACHINE IN AMERICA. Send for a Circular containing description. A. La TOURETTE.

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Kills all Vermin on Animals and Birds.
Cures all Skin Diseases on Animals.
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Kills Canker Worm on Apple Trees.
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Kills all Vermin that infest Grape and Cranberry Vines.

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U. S. 10-40 BONDS.

These Bonds are issued under the Act of Congress of March 8th, 1864, which provides that in lieu of so much of the loan authorized by the Act of March 3d, 1863, to which this is supplementary, the Secretary of the Treasury is authorized to borrow from time to time, on the credit of the United States, not exceeding TWO HUNDRED MILLION DOLLARS during the current fiscal year, and to prepare and issue therefor Coupon and Registered Bonds of the United States; and all Bonds issued under this Act shall be EXEMPT FROM TAXATION by or under any State or municipal authority. Subscriptions to these Bonds are received in United States notes or notes of National Banks. They are TO BE REDEEMED IN COIN, at the pleasure of the Government, at any period *not less than ten nor more than forty years* from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually.

The interest is payable on the first days of March and September in each year. The semi-annual Coupons are payable at those dates, and the annual Coupons on the 50 and 100-dollar Bonds are payable on the first of March.

Subscribers will receive either Registered or Coupon Bonds, as they may prefer. Registered Bonds are recorded on the books of the U. S. Treasurer, and can be transferred only on the owner's order. Coupon Bonds are payable to bearer, and are more convenient for commercial uses.

Registered Bonds will be issued of the denominations of Fifty Dollars ($50), One Hundred Dollars ($100), Five Hundred Dollars ($500), One Thousand Dollars ($1,000), Five Thousand Dollars ($5,000), and Ten Thousand Dollars ($10,000); and Coupon Bonds of the denominations of Fifty Dollars ($50), One Hundred Dollars, ($100), Five Hundred Dollars ($500), and One Thousand Dollars ($1,000).

Subscribers to this loan will have the option of having their Bonds draw interest from March 1st, by paying the accrued interest in coin—(or United States notes, or the notes of National Banks, adding fifty per cent. for premium,) or receive them drawing interest from the date of subscription and deposit.

As these Bonds are exempt from municipal or State taxation, their value is increased from one to three per cent. per annum, according to the rate of tax levies in various parts of the country.

At the present rate of premium on gold they pay over eight per cent. interest in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducements to lenders as the various descriptions of U. S. Bonds. In all other forms of indebtedness, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole property of the country is holden to secure the payment of both principal and interest in coin.

These Bonds may be subscribed for in sums from $50 up to any magnitude, on the same terms, and are thus made equally available to the smallest lender and the largest capitalist. They can be converted into money at any moment, and the holder will have the benefit of the interest.

The fact that all duties on imports are payable in specie furnishes a fund for like payment of interest on all Government Bonds largely in excess of the wants of the treasury for this purpose.

Upon the receipt of subscriptions a certificate of deposit therefor, in duplicate, will be issued, the original of which will be forwarded by the subscriber to the Secretary of the Treasury, at Washington, with a letter stating the kind (registered or coupon) and the denominations of Bonds required.

Upon the receipt of the original certificates at the Treasury Department, the Bonds subscribed for will be transmitted to the subscribers respectively.

Subscriptions will be received by the *Treasurer of the United States* at Washington, and the *Assistant Treasurers* at New York, Boston and Philadelphia, and by the First National Bank at Albany, N. Y., by the First National Bank at Buffalo, N. Y., and by all National Banks which are depositaries of public money. All respectable Banks and Bankers throughout the country will furnish further information on application, and afford every facility to subscribers. je'23

THE CELEBRATED CRAIG MICROSCOPE. — Combining Instruction with Amusement, is mailed, prepaid, for $2.50; or with 6 beautiful Mounted Objects for $3.25; with 24 Objects, $5.50, by HENRY CRAIG, 180 Centre street, New York.

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CONTENTS OF THIS NUMBER.

Walks and Talks on the Farm—No. 6	201	How to raise Geese	210
Corn after Turnips	205	How to manage a Fractious Horse	211
Farm Work for July	205	Odd Jobs	212
The Onion Maggot	206	Short Sermons for Farmers—No. 7	213
Transplanting Sweedish Turnips	207	The Largest Farm in England	214
Gas-lime, &c.	207	Suggestions to Growers of "ye Weed."	215
Butter-Making	208		
Poultry Hints for July	209		

HORTICULTURAL DEPARTMENT.

Garden Work for July	216	Fruit Growers' Society of Western New York	218
Lime for Melon Bugs	216	Raspberry Culture	220
Trees for Shelter	217	Hyacinths	220
The Balsam	217		

Young People's Page	221	Ladies' Department	222
Miscellaneous	224		

EDITOR'S TABLE.

Half Volume of the Genesee Farmer	225	The State Fair	226
Notes on the Weather	225	Western New York Fruit Growers Society	226
A Canadian's opinion of the Genesee Farmer	225	Harvest Beer	226
The Markets	226	The Illustrated Horse Management	227
Our List of Agricultural Implement Makers	226	Inquiries and Answers	227